

DOCUMENT RESUME

ED 147 564

08

CE 013 912

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TITLE Eradicating Sexism in Vocational Education. Final Report.
INSTITUTION Williamsport Area Community Coll., Pa.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.; Pennsylvania Research Coordinating Unit for Vocational Education, Harrisburg.
BUREAU NO 19-6802
PUB DATE 21 Nov 77
NOTE 101p.
EDRS PRICE MF-\$0.83 HC-\$6.01 Plus Postage.
DESCRIPTORS Community Colleges; *Counseling Services; Discriminatory Attitudes (Social); Educational Improvement; Enrollment; *Equal Opportunities (Jobs); Instructional Materials; *Post Secondary Education; Program Evaluation; Research; *Sex Discrimination; *Sex Stereotypes; Staff Improvement; Surveys; *Vocational Education
IDENTIFIERS Williamsport Area Community College PA

ABSTRACT

A project was conducted to identify the nature and extent of sex role stereotyping in the Williamsport Area Community College. Using examination methods which could be replicated by other institutions, the project documented instances of sex role stereotyping in college procedures and materials which can affect students' career and educational options. The study was guided by the following objectives: conduct an institutional self-assessment to determine to what extent the college contributes to sex stereotyping in counseling and institutional activities; assess counseling, instructional, and career-related materials used by the college to determine the extent that material contributes to sex stereotyping; and conduct inservice seminars for instructional and counseling personnel on various aspects of sexism and ways to reduce or eliminate real or artificial barriers. Project activities included the following: compiled background information on sex stereotyping and bias in vocational education and the labor market; developed, administered, and analyzed results of an attitudinal survey administered to students and faculty on sex stereotyped beliefs; and reviewed each academic division to determine if any program or activity included factors which contribute to sex role stereotyping. (In this report, project recommendations are presented in the areas of recruitment and admissions, special courses and programs, staff and student development, career development and placement, facilities, support for nontraditional students, and administrative procedures) (BM)

ED147564

FINAL REPORT

ERADICATING SEXISM IN VOCATIONAL EDUCATION

(Project No. 19-6802)

Anna D. Weitz

WILLIAMSPORT AREA COMMUNITY COLLEGE

WILLIAMSPORT, PA.

November 21, 1977

U.S. DEPARTMENT OF HEALTH,
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RESEARCH COORDINATING UNIT

CE 013 912

ERRATA

FINAL REPORT

ERADICATING SEXISM IN VOCATIONAL EDUCATION

(Project No. 19-6802)

- Page 17. In the Student Count by Curriculum, IV.A.1
"Independent Studies (IS)" should read "Individual Studies (IS)".
- Page 18. In the Student Count by Curriculum, IV.A.2
"Independent Studies (IS)" should read "Individual Studies (IS)".
- Page 19. In the Student Count by Curriculum, IV.A.3
"Independent Studies (IS)" should read "Individual Studies (IS)".
- Page 20. In the Student Count by Curriculum, IV.A.4
"Independent Studies (IS)" should read "Individual Studies (IS)".
- Page 43. In the first paragraph the last word in line
10, "Some" should be replaced by "All".
- Page 47. The paragraph beginning on page 46 continued
on page 47, the second sentence should be replaced by "The Division Director and the Dean upheld a vote of the nursing faculty which allowed the student to switch to a white uniform".
- Page 50. In the third paragraph the first sentence should
be replaced by "It should be noted that WACC does have a computer processing center, but personnel and available programs were limited; therefore, it provided only simple calculation of the means".

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ACKNOWLEDGEMENTS

A project of this nature relies heavily on previously developed research and literature in the fields of sex-role stereotyping in society, vocational and career education, and the relative status of women and men in the labor force. In this case the task was to glean from appropriate materials data which could be useful in identifying sex stereotyped barriers to full participation of women and men in a postsecondary vocational institution. The hiring of a fulltime staff member to conduct the investigation and indeed the daily work involved in collecting data for this project was a consciousness raiser for many people at the Williamsport Area Community College. This heightened awareness and concern should not be minimized as they are prerequisites for any specific steps at eliminating existing barriers and correcting imbalances.

In the course of this investigation several people rendered specific assistance and support. Dr. Vincent De Sanctis, Assistant Dean for Community Education at WACC, provided ongoing supervision and direction to the project. Martha Sykes prepared the data and organized the findings from the attitudinal survey administered to students and faculty. Dr. Charles Getchell, Chairperson, Mathematics Department of Lycoming College was a valuable consultant in working with this survey. This final report and the conclusions found therein are, of course, solely the responsibility of the author, the Project Investigator.

III. INTRODUCTION AND BACKGROUND INFORMATION

- A. Abstract
- B. Introduction
- C. Educational Preparation of Women for the
Labor Force
- D. Women in the Labor Force--Effects of
Sex Role Stereotyping
- E. Process for Conducting the Study

ABSTRACT

19-6802: Eradicating Sexism in Vocational Education

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\$ 15,000.00 Federal
\$ 5,918.00 Non-Federal
10/1/76 to 9/30/77

The purpose of the project was to identify the nature and extent of sex role stereotyping in one postsecondary vocational education institution. Using examination methods which could be replicated by other institutions, the study documents instances of sex role stereotyping in College procedures and materials which can effect students' career and educational options.

OBJECTIVES

1. Conduct an institutional self-assessment to determine to what extent the College contributes to sex stereotyping in counseling and institutional activities.
2. Assess counseling, instructional and career related material used by the College to determine the extent that material contributes to sex stereotyping.
3. Conduct inservice seminars for instructional and counseling personnel in the College's service area on various aspects of sexism and ways to reduce or eliminate real or artificial barriers.

OUTCOMES

1. Compiled background information on sex stereotyping and bias in vocational education and the labor market.
2. Utilized a written guide to detect sex stereotypes and bias in College produced printed material, career education information, and a sample of textbooks in vocational education curriculums.
3. Developed, administered, and analyzed results of an attitudinal survey administered to students and faculty to determine the extent of sex stereotyped beliefs held.
4. Reviewed each academic division to determine if the physical plant, recruitment or placement activities, or general operation of the programs included factors which contribute to sex role stereotyping.

AUDIENCE

The report would be of interest to administrators in postsecondary vocational education institutions or those concerned generally with sex role stereotyping at this level of vocational training.

PUBLICATIONS AVAILABLE

Final Report

INTRODUCTION

The heightened awareness and concern of women and men with unequal opportunities in the labor market and efforts to begin rectifying these imbalances have led to questions about the various steps and procedures which prepare individuals for the work force. Postsecondary vocational education is one of the avenues many people use in preparing for entering or reentering the work force. And as such the nature and extent of sex stereotyping in its programs becomes a legitimate target for examination. Throughout this study sex role stereotyping is defined as the conscious and unconscious attitudes and assumptions that certain characteristics and, therefore, certain behavior (e.g. abilities, vocational preferences, interests, etc.) are more appropriate for one sex than another.

Until recently most efforts focusing on different treatment and stereotyping of the sexes in vocational education have concentrated on the secondary level. Postsecondary vocational training is not merely an extension of secondary programs. And as a distinctive part of higher education efforts to examine liberal arts and university programs have not entirely met the needs of vocational education.

The need for such examination is clear. Education must sensitize itself to the effects of sex role stereotyping and take corrective measures where specific problems exist. To not do so will put education in the role of collaborating with a dual and unequal system perpetuating artificial assumptions about people based solely on their sex and not on their individual abilities and interests.

This research project was conducted with the intent of being a pilot project delineating the steps a postsecondary vocational institution can use to identify instances of sex role stereotyping which can effect the participation of women and men in it's programs.

Equal opportunity legislation, most noticeably Title IX in education, prohibits overt sex discrimination--banning or segregating students on the basis of sex or providing opportunities and rewards only to males or females--but such legislation does not necessarily lead to eliminating sex role stereotyping.

Sex role stereotyping and its effects result from and are tied to sex bias more than sex discrimination. As Dr. Amanda J. Smith of North Carolina's New Pioneers Project has pointed out it is necessary to differentiate between sex discrimination and sex bias. "Sex discrimination is that which is against the law--the obvious stuff like unequal pay or outright banning of students from courses. It's bad, but also relatively rare. A unit might be in total legal compliance with Title IX and still have very traditional enrollment because it has given no thought to something more interesting, potent, and important: sex bias. Sex bias is the underlying network of assumptions that says men and women should be

different, not only physically, but in their tastes, talents, and interests."¹

As Daryl and Sandra Bem have pointed out, even if all discrimination were to end today, the internalized and institutionalized effects of sex role stereotyping would still continue to operate.²

Sex role stereotyping is clearly anti-individualistic in that it refuses to take into account a person's particular motivation, capabilities, physical capacity or a host of other variables. It effects not only what people do but also what they think, about themselves and others. In a world sharply differentiated on the basis of sex, girls and boys grow up believing the stereotypes with little or no encouragement to develop themselves in ways which might challenge these generalizations.

Sex stereotyping effects girls and boys. However, the resulting limitation of options for females, particularly in terms of educational and career possibilities, makes the results of sex role stereotyping particularly burdensome for women. Women grow up incorporating these rigid societal limitations into how they act, what they think about themselves, and what they expect from other women. Men, more so than women, grow up with the societally approved expectation that they have a right to try and be almost anything they want. Women's acceptable choices--even at the stage of mere consideration or exploration --are much fewer. One result of this differentiation is that certain jobs and occupations have been defined as "female" and "male". In terms of sheer numbers only, those for men far exceed those for women.

In the range of programs most often found in vocational education leading to specific career preparation those typically considered "male" outnumber those labeled "female". And the former often have the added bonus of ending in jobs with higher pay or greater possibilities for advancement. Because of this men's participation in so-called "female fields" raises somewhat different questions than those resulting from females participation in fields non-traditional for them. The biggest obstacle would appear to be the lack of financial or status rewards in "women's work". As the section in this report on "Women's Participation in the Labor Force" clearly indicates, jobs stereotyped as "female" are most likely to be at the lower end of pay scales and usually have minimal accompanying status or authority.

The general lack of career preparation for women through the school systems, the fact that in certain circles it is still acceptable to debate whether or not women should be prepared for careers or be employed, and the history of excluding or discouraging women from certain fields or positions within the labor force make it appropriate for this project to pay particular attention to the status of women and the messages being delivered to and about them.

¹Dr. Amanda J. Smith, "Stamping Out Sex Stereotyping in North Carolina", American Vocational Journal, April, 1976. p. 30.

²Sandra L. and Daryl J. Bem, Training the Women to Know Her Place, Harrisburg: Division of Pupil Personnel Services, Bureau of Instructional Support Services, Pennsylvania Department of Education, 1973. pp. 4-16.

EDUCATION AND PREPARATION OF WOMEN FOR THE LABOR FORCE

Sex role stereotyping in the labor force has its roots in the entire socialization process which has been repeatedly shown to incorporate sex differentials from the time of one's birth. These prevailing attitudes permeate every aspect of American education. Little if any effort is made to prepare both female and male students for the reality of women's participation in the labor force. Curriculum materials reflect traditional stereotypes about women's proper role (when women are mentioned at all), and in most situations educators themselves do not challenge outdated stereotypes.³

"Problems with school guidance personnel are likely to occur in two areas. First, the counselors may themselves embrace the larger society's stereotypes and in many cases will themselves be guided by incorrect and/or outdated perceptions of reality in the job market. Second, guidance materials available for use by counselors often have serious shortcomings, if not negative biases, with respect to women."⁴ Put in straight forward terms, too many educators still believe that the ideal is a working husband, housewife, and two children and ignore the fact that only 6% of American families fit that stereotype.⁵ And if women do work outside the home, so the thinking goes, it can only be at certain kinds of jobs because they lack career motivation and commitment, will have higher rates of absenteeism and job turn-over than men, and do not really need the money as much as their male counterparts anyway--assumptions based on unrealistic stereotypes.

There are many factors involved in socialization, and what is seen, experienced, and learned in school is not the whole story behind sex role stereotyping. But having said that, education can not escape its share of the responsibility for this problem, vocational education in particular. "Vocational education has a unique opportunity to contribute to the goal of career selection on the basis of interest and aptitude rather than on sex biased probabilities. It can do so by offering equal access to both females and males to all vocational programs, thus maximizing the probability of success in the world of work for all candidates. However, the data presently available indicate that many current practices in vocational education reflect the prevalent sex stereotypes."⁶ An even harsher conclusion was reached by the Advisory Committee on the Rights and Responsibilities of Women, 1975, to the Secretary of Health, Education and Welfare." . . . women's

³Secretary's Advisory Committee on the Rights and Responsibilities of Women, The Vocational Preparation of Women, Washington, D.C.: Department of Health, Education and Welfare, 1975, pp. 34-38.

⁴Ibid., p. 35.

⁵U.S. News and World Report, New York: vol. LXXXIII no. 7, August 15, 1977, p. 62.

⁶Morgan V. Lewis and Lynne Warfield Kaltreider, Attempts to Overcome Sex Stereotyping in Vocational Education, University Park, PA: Institute for Research on Human Resources, The Pennsylvania State University, 1976, p. 39.

vocational education programs, which are themselves long-established elements in American public education, have not actively sought to provide women with the particular skills they need if they are to seek or hold better, more promising jobs. Nor have they encouraged women to challenge clearly identified barriers in the job market. Instead, the schools have been--and in most cases continue to be--among the major social forces perpetuating the stereotyped images of women, their vocational opportunities, aptitudes, and interests. Schools continually direct young women toward vocational and educational choices that later will tend to lock them into undesirable segments in the labor market."⁷

An immense resource for providing women with the skills necessary to succeed in the labor force is the postsecondary vocational education program particularly those found in the community college or postsecondary technical institute.

But the lessons of frequently unchallenged sex stereotyped socialization die hard, and on the postsecondary level women are once again disproportionately clustered into a few programs such as, health and public service fields even though between 1970 and 1972 females made up 39.9% of all postsecondary vocational education enrollments.

Even with Title IX and other legislation designed to provide equal opportunity and comparable programs for females and males, too many educators and institutions focus entirely on the letter of the law rather than embracing the spirit of it. These regulations were designed as a means to an end and not an end in themselves. Or as Mildred Bulpitt, President of the American Association of Women in Community and Junior Colleges has wondered, are schools ". . . still trying to decide if they should change rather than concentrating on how to change?"⁸

⁷Secretary's Advisory Committee on the Rights and Responsibilities of Women, 1975, op.cit., p. 24.

⁸Mildred Bulpitt, "Women's Programs in Community Colleges: Who Needs Them?", Community College Frontiers, vol. 5, no. 3, spring 1977, p. 7.

WOMEN IN THE LABOR FORCE--THE EFFECTS OF SEX ROLE STEREOTYPING

The role and status of women in every phase of American life is in a state of change. And no where is this more evident than in women's increased participation in the labor force, particularly dramatic since the end of World War II. (See III.D.1.) Although the figures now show that women comprise approximately 40% of the entire work force, it is the reality behind these gross totals which bit by bit tell the real story of American women workers.

One of the most clear-cut characteristics of this group is what has been termed "job ghettoization"--the great numbers of female workers clustered into only a handful of occupations. (See III.D.2.) Clerical occupations still employ the largest number of women, with service workers and professional workers next in line. In the last category the overwhelming majority are either teachers or health workers both areas where women have traditionally sought employment. "Although increasing numbers of women have become employed in traditionally male career fields in the last decade and a half, women are still concentrated in a relatively small number of occupations. For example, in 1973 more than two-fifths of all women workers were employed in 10 occupations--secretary, retail trade salesworker, bookkeeper, private household worker, elementary school teacher, waitress, typist, cashier, sewer and stitcher, and registered nurse."⁹ Put in other terms out of 57 occupations women make up 90% of the workers in 17 categories, and 75% of all workers in 31 of the 57 categories. Figures for men employed show dramatically less concentration with less than 20% of all males employed in the 10 largest occupations.

While a majority of women in this country are employed, the kinds of jobs most of them have are at the lower end of the payscale and do not provide them with policy or decision making authority or status. It is this concentration in these types of jobs along with vestiges of outright economic discrimination on the basis of sex which many experts believe accounts for the fact women full-time workers earn approximately 57% of what male fulltime workers make.

Women work outside of the home because of economic need, to either support themselves and/or their children or to help raise the total family income above the poverty level. Women workers are as well educated as males with the median for both groups being approximately 12.4 years. 90% of all women will be employed during at least part of their adult lives with 20 years being the average time they are in the labor force. This last figure is projected to increase steadily. Given all these facts, what then are the factors contributing to women's job ghettoization in the comparatively low paying often dead-end jobs? Increasingly the evidence points to sex role stereotyping and its resulting biases as major factors effecting the kind of participation women have in the labor force.

⁹Women's Bureau, 1975 Handbook on Women Workers, Washington, D.C.: U.S. Department of Labor, 1975, p. 91.

III.D.1

WOMEN IN THE LABOR FORCE,
SELECTED YEARS, 1900-75

<u>YEAR</u>	<u>WOMEN IN LABOR FORCE AS</u> <u>PERCENT OF</u>		
	<u>WOMEN IN</u> <u>LABOR FORCE</u> (thousands)	<u>TOTAL LABOR</u> <u>FORCE</u>	<u>ALL WOMEN OF</u> <u>WORKING AGE</u>
1900	5,114	18	20
1910	7,889	21	25
1920	8,430	20	23
1930	10,679	22	24
1940	12,845	24	25
1945	19,270	30	36
1950	18,412	29	34
1955	20,584	30	36
1960	23,272	32	38
1965	26,232	34	39
1970	31,560	37	43
1972	33,320	37	44
1975*	36,000	40	46

Source: "The Economic Role of Women", reprinted from Economic Report of the President, 1973. Washington: Women's Bureau, Employment Standards Administration, Department of Labor, 1973, p. 91.

*U.S. Department of Labor, Bureau of Labor Statistics, Monthly Labor Review (November 1975), p. 2.

III.D.2

WOMEN SIXTEEN YEARS OF AGE AND OVER IN THE LABOR FORCE FEBRUARY 1976-75

		FEBRUARY 1976	FEBRUARY 1975	
		WOMEN OF	WOMEN OF	
		MINORITY	MINORITY	
	ALL WOMEN*	RACES*	ALL WOMEN	RACES*
<u>OCCUPATIONS OF EMPLOYED WOMEN</u>				
Number (in thousands)	34,213	4,245	32,756	3,996
Percent	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Professional and technical workers	16.1	14.8	15.8	12.4
Managers and administrators (except farm)	5.4	3.2	4.9	2.7
Sales workers	6.4	2.8	6.8	2.7
Clerical workers	35.8	25.1	36.0	26.5
Craft and kindred workers	1.6	1.2	1.4	1.6
Operatives, except transport	11.3	15.0	10.9	13.6
Transport equipment operatives	.6	.4	.6	.6
Nonfarm laborers	1.0	1.4	1.0	1.4
Private household workers	3.0	9.2	3.6	11.3
Service workers (except private household)	17.9	26.5	18.1	27.0
Farmers and farm managers	.2	--	.3	--
Farm laborers and supervisors	.5	.3	.7	.5
<u>UNEMPLOYMENT RATES</u> (not seasonally adjusted)				
Total 16 years and over	9.1	14.2	9.5	13.6
16 to 19 years	19.1	34.5	19.0	40.2
20 years and over	8.0	12.5	8.4	11.2
Percent of unemployed seeking part-time work	24.5	19.7	23.0	20.0
<u>FULL-TIME/PART-TIME WORK</u> (nonagriculture)				
Percent on full-time schedules	70.1	75.8	69.8	72.8
Percent on part-time schedules	29.9	24.2	30.2	27.2

*Includes all races other than white; Spanish-speaking persons are included in the white population.

SOURCE: Data distributed by Women's Bureau, U.S. Department of Labor, March 1976

PROCESS FOR CONDUCTING THE STUDY

The objectives of this study called for two distinct types of activities. The first was to design ways and means to identify and assess sex role stereotyping in the various activities and programs of the postsecondary section of the institution. The second was to arrange and conduct demonstration-type workshops on sex role stereotyping for area guidance personnel using the research at WACC as a basis for these sessions. Although certainly related in terms of the information necessarily involved, meeting these objectives required entirely different kinds of skills and procedures.

Instructional Divisions

The postsecondary program at WACC consists of eight separate Divisions: Building Technologies; Business and Computer Science; Communications, Humanities and Social Sciences; Earth Science; Electrical/Electronics, Engineering and Design Technologies; Mathematics, Science and Allied Health; and Transportation Technologies. See III.E.1 for a list of programs within each Division.

Given the distinctive nature of the Divisions each was reviewed individually using the following general procedures:

1. Written material on a Division such as sections in the catalog and Division brochures was reviewed using John Schenck's "Sexism in Textbooks: A guide to Detection". (See III.E.2).¹⁰
2. A sample of textbooks was reviewed also using the Schenck "Guide".
3. Division Directors, and in the case of the practical nursing program, the Coordinator, were interviewed. At that time the procedures for the research project were reviewed and they were asked a variety of questions on program content, recruitment and placement, their opinions on the acceptance and/or problems nontraditional students would face in their area, hiring of non-traditional faculty members. Variations in the interviews were necessary depending on the type of programs offered in each Division. Information from these interviews is incorporated into the "General Comments" section on each Division.

¹⁰The Schenck "Guide" was chosen for use in this project because of its concise and clear-cut examples illustrating the major kinds of sex bias and sex differentiated language commonly found in written material. The importance of revising language is underscored by the existence of guides now used and distributed by major publishing companies; McGraw-Hill, Guidelines for Equal Treatment of the Sexes in McGraw-Hill Book Company Publications; South-Western Publishing Company's Guidelines, Fair and Balanced Treatment of Minorities and Women; and Scott, Foresman's Guidelines for Improving the Image of Women in Textbooks. Such materials emphasize the simple fact that it is possible to avoid sex stereotyped language and clearly spell out the implications and meanings of its continued usage.

4. All of the faculty and a sample of students in each Division were sent an attitudinal survey designed to indicate their degree of agreement or disagreement with stereotypes based on sex. Details of the survey are included in a separate section of this report.
5. The physical plant of each Division was toured to determine if there were any logistical problems involved in non-traditional students using these facilities.

In addition, enrollment, placement and employment statistics for the entire postsecondary program were reviewed to identify patterns based on sex.

As the purpose of this study was to specifically examine vocational education programs, curriculums in the Division of Communications, Humanities, and Social Science were not included. In the Division of Math, Science, and Allied Health only the health related curriculums received particular attention. The humanities and liberal arts would require specific review procedures related to but not identical to those appropriate for vocational education, the focus of this project. Faculty and students in these two Divisions were, however, included in the attitudinal survey sample.

It is necessary at this point to mention the limitations inherent in the review of textbooks. Textbooks alone are not the sum of curriculum materials in any program, and a thorough and complete review solely of the curriculum was not the focus of this project. Compensatory and/or additional materials to supplement textbook offerings are often routinely used by teachers; and whether these are films, guest speakers, reprints of articles or library assignments, they can drastically change a course's content. Equally important is the way in which printed material is used by an instructor. Are the statements and values conveyed allowed to stand as presented by textbooks, or are they the basis for class discussion and even possible revision and interpretation?

For example, it is conceivable that material containing sex and race biases could be the basis for class discussion on stereotyping and the contributions made to every field by all kinds of people even if this information has traditionally been ignored in textbooks and curriculums. In other words, students and teachers could participate in a consciousness raising situation for all concerned. Although this use of biased material is conceivable, it is unlikely to occur on a regular basis across the board in any institution given that sex stereotyping is so much a part of our culture.

This project was not able to monitor any particular program's complete curriculum offerings. There was no observation of classes over a period of time to learn how textbook material considered questionable on the basis of sex stereotyping was handled or what if any compensatory materials were distributed or assigned. Such a focused review might well be undertaken by a curriculum specialist in the future in a project designed with this area as its sole subject.

The questions of class usage and interpretation of materials by instructors was of greatest concern in reviewing the less technical material. However, in all fields the procedures used indicated problems which need to be recognized. The information obtained does demonstrate sex bias and stereotypes in certain textbooks, and its existence cannot be ignored.

Textbooks and all written matter contain "...more than cognitive materials. They also contain affective cues - cues regarding the values and assumptions of a culture. Many of these cues deal with gender-appropriate behavior, expectations, and aspirations - but behavior, expectations, and aspirations associated with being male or female."²

The use of language and graphics is a powerful tool, and they deliver a potent message. It is not, therefore, inappropriate to examine these closely and point out the problems they present in expressing and reinforcing sex role stereotypes. Schenck offers a rebuttal to those who feel that the careful scrutiny of language is either unnecessary or silly. "The fact remains, though, that using masculine terms to generalize about groups that include females is a form of sex bias. Alternative terms and phrases are too readily available to require the continuation of this practice in textbooks."³

Career Development and Counseling

Basically three procedures were used in reviewing these areas:

1. A random sample of written material in the Career Development Center was reviewed using the Schenck "Guide". Material was reviewed in three fields: electronics, health related careers and general business management. These three areas were determined to represent occupational areas that at the level of postsecondary vocational education could be characterized as traditionally male, traditionally female, or increasingly mixed in terms of both sexes being among those who are students or employed in these areas.
2. Research literature on the most frequently used tests was reviewed to determine if there was evidence of sex role stereotyping and/or bias in these instruments which might effect career education counseling.
3. The Director of the Career Development Center was interviewed on his perceptions of sex role stereotyping in career education, the procedures his staff use with clients and special programs designed to overcome stereotyping.

Workshops for Area Secondary School Guidance Personnel

Four 1 1/2-2 hour workshops were held in May, 1977 for various high school guidance personnel. Counselors were sent a letter which contained background information on this research project and an invitation to participate in a workshop. These sessions were designed to discuss the general topic of sexism in vocational and career education, and for this reason a representative of WACC's Career Development Center also made a presentation. In March and April, 1977,

²Ibid., p. 42

³Ibid., p. 43

the Project Investigator traveled with a member of the Admissions Office to twelve high schools in sponsoring districts. Discussions with guidance counselors included the projects's work, the upcoming workshops, and future possible cooperative efforts on overcoming stereotyping, particularly in career education.

Three of the four workshops were held in sponsoring school district facilities. Regional and geographic representation was attempted to facilitate participation. The fourth workshop was held at WACC. Participants were not limited to personnel from sponsoring school districts, as the number of those to be contacted and invited was expanded by using membership lists from two area guidance counselor associations.

Material used and presented in the workshops was specifically related to the changing role of women in the labor force, socialization and sex role stereotyping particularly as it results in differences in career preparation for females and males. Model programs at the secondary school level and general recommendations and resources for their further consideration were also included in the presentation.

III.E.1

WACC ASSOCIATE DEGREE AND CERTIFICATE PROGRAMS

ASSOCIATE DEGREE

CERTIFICATE

Building Technologies Division

Carpentry and Building Construction
Technology

Construction Carpentry
Plumbing and Heating

Business and Computer Science Division

Accounting
Business Management
Computer Science Technology
Industrial Technology
Secretarial Science
(Executive, Legal, Medical)

Clerical Studies
Computer Operator

Earth Science Division

Forest Technology
Ornamental Horticulture
Technology-Floriculture
Ornamental Horticulture
Technology-Nursery Management

Service and Operation of Heavy
Construction Equipment

Electrical/Electronics Division

Electrical Technology
Electronics Technology

Electrical Construction

Engineering and Design Technologies

Architectural Technology
Civil Engineering Technology
Engineering Drafting Technology
Graphic Arts
Technical Illustration
Tool Design Technology
Toolmaking Technology

Machinist General
Mechanical Drafting
Printing
Sign Painting
Welding

Mathematics, Science, and Allied Health

Dental Hygiene*
Dental Laboratory Technician**
Food and Hospitality Management
Radiologic Technology

Operating Room Technician
Practical Nursing

Transportation Technologies

Automotive Technology

Auto Body Repairman
Automotive Mechanics
Aviation Maintenance
Technician
Diesel Mechanics

* beginning January 1978

**given at Lewisburg Penitentiary only

III.E.2

SEXISM IN TEXTBOOKS: A GUIDE TO DETECTION

<u>CATEGORY DESCRIPTOR</u>	<u>DEFINITION</u>	<u>EXAMPLES</u>
Associated Terms	Speciously attributing gender to generic terms.	Physician...he/his; shopper...she/her; nurse...she/her; average American...he/his; student...he/his; male nurse; lady executive; woman driver; aviatrix; stewardess; craftsman.
Concealed Representation	Using masculine terms to generalize about a group that includes females.	Primitive man; mankind; man-made; early man; average man; man on the street; craftsmen; Using "Dear Sir" as salutation in a letter to an unknown recipient.
Conventional Wisdom	Depicting or implying that females are limited to certain abilities, traits, emotions, activities, sex roles, or occupations because they are females.	Weak; illogical; dependent upon male initiative; uncompetitive; retiring, without mechanical ability, poor drivers, must marry; have no interests outside home and family; cannot be principal source of family income.
Differentiated Reference	Using non-parallel terms when referring to males and females.	John Jones and his wife; man and wife; John and Mrs. Jones; Secretary Kissinger, Mrs. Gandhi; housewife/man of the house; titles of address indicating female marital status.
Diminished Existence	Consistently ignoring or minimizing the existence of females.	Written materials not directed to females, contributions to cultural achievements not recognized; females not included in illustrations, photos, examples, etc.; females must conform to male standards; the male's work is more worthy than the female's; females not shown in positions of authority.

III.E.2
(continued)

<u>CATEGORY DESCRIPTOR</u>	<u>DEFINITION</u>	<u>EXAMPLES</u>
Inferior Mention	Consistently making refer- ence to the male before the female.	Mr. and Mrs.; his and hers; male and female; he and she; boys and girls; John and Jane.
Spoiled Description	Using perjorative or girl- watching terms when referring to females.	Woman drivers; buxom blonde; scatterbrained females; the little woman; the girls (when referring to adult females); the fair sex; pretty little thing; pert young mother; only a woman; even though a woman; career girl.
Subservient Status	Depicting or implying that females are the property of males.	John Smith moved and took his wife with him; Charles gave his wife permission to work.

John P. Schenck. "Sexism in Textbooks: A Guide to Detection",
American Vocational Journal, October, 1976. p. 44.

IV. FINDINGS OF THE INVESTIGATION

- A. Enrollment Statistics
- B. Employment Statistics
- C. Division Brochure and the College Bulletin
- D. Textbooks
- E. Selected Comments and Observations--Post-secondary Divisions and Programs
 - 1. Building Technologies
 - 2. Business and Computer Science
 - 3. Earth Science
 - 4. Electrical/Electronics
 - 5. Engineering and Design Technologies
 - 6. Practical Nursing
 - 7. Transportation Technologies
- F. Attitudinal Survey
- G. Career Development Center
- H. Secondary Workshops

ENROLLMENT STATISTICS

Enrollment statistics by program for fall semester 1975 through spring semester 1977 are given in IV.A.1-4. The numbers indicating the percentage of females and males in each curriculum clearly point up the imbalanced enrollments. This becomes more evident when the curriculums General Studies (GS), Unclassified (UN), and Individual Studies (IS) are discounted.

IS and GS students are studying in the College's general education program with those in IS being allowed to take up to 15 credits in the trade areas. Unclassified designates those who have not yet applied to a particular degree program. These students will generally end up in general education or business, as the tight knit schedules of the technical and trade curriculums do not lend themselves to the general academic exploration characteristic of the UN student.

The enrollment statistics given were those available from WACC's Computer Center. The figures previous to fall of 1975 were not available from the Center. The ones given are those carried as the official third week figures computed after each semester's drop--add period. Enrollment statistics were requested for this project several times with each print out having slight variations in totals. The ones listed in this report are the most accurate available.

The Computer Center staff had to write a special program to retrieve enrollment statistics by program and by sex. Doing so revealed a problem in the way information on students is reported. If the Admissions Office can not determine from their information the sex of the student, s/he is automatically counted as a male for purposes of determining the total number of each sex enrolled at the College. Accurate data on the enrollment patterns of females and males is essential. A commitment by the institution to encourage and support the nontraditional student requires reliable information on where they are currently enrolled, what programs are making progress in having a more balanced enrollment, and what programs could be designated as currently hard core and resistant to efforts breaking down sex stereotyped barriers.

In the Computer Operator program, enrollments are obviously dropping for each semester given. The broader Associate Degree Computer Science Technology program consistently has more males than females, while the Computer Operator curriculum is more nearly balanced between the sexes. The percentage of females to males in Accounting and Business Management seems to be holding steady at approximately 39 percent--61 percent, and 23 percent--77 percent, respectively. In terms of numbers enrolled, there seems to be an over all increase of women during the four semesters reviewed.

Food and Hospitality Management figures show a trend developing toward a more equal mix of women and men. A drop in the number of Journalism students has resulted, percentage wise, in women losing ground in this area. The number of females in Graphic Arts and Printing, although low, seems to be holding relatively steady.

Women are making headway in entering some traditionally male programs in business and the graphic arts. However, not surprisingly, there has been no such progress in the male oriented technical and trade areas. Job ghettoization of women in the labor force has its parallels at WACC; and men are not choosing to enter fields traditionally assumed to be for women, such as allied health and office worker.

No special efforts or procedures have been adopted to recruit nontraditional students. The end result is enrollment patterns generally conforming to traditional sex stereotypes about division of labor within the work force.

IV.A.1

STUDENT COUNT BY CURRICULUM BY SEX--FULL TIME--FALL, 1975

Curriculum	Males	Females	% Males	% Females
Auto Body Repairman (AB)	40	0	100%	0%
Aviation Maintenance Technician (AC)	48	1	98%	2%
Automotive Mechanics (AM)	102	1	99%	1%
Architectural Technology (AT)	68	1	99%	1%
Automotive Technology (AU)	37	0	100%	0%
Accounting (BA)	41	26	61%	39%
Business Management (BM)	64	16	80%	20%
Broadcasting (BR)	38	7	84%	16%
Secretarial Science (BS)	0	85	0%	100%
Clerk-Typist (BT)	0	0	0%	0%
Carpentry & Building Con. Tech. (CB)	71	0	100%	0%
Construction Carpentry (CC)	191	1	99%	1%
Computer Operator (CO)	10	13	43%	57%
Computer Science Technology (CS)	50	19	72%	28%
Civil Engineering Technology (CT)	43	0	100%	0%
Dental Laboratory Technician (DL)	33	0	100%	0%
Diesel Mechanics (DM)	91	0	100%	0%
Engineering Drafting Technology (ED)	31	3	91%	9%
Electrical Technology (EL)	57	1	98%	2%
Electronics Technology (ET)	93	1	99%	1%
Electrical Construction (EW)	149	2	99%	1%
Food And Hospitality Management (FH)	26	14	65%	35%
Floriculture (FL)	12	31	28%	72%
Forest Technology (FR)	119	9	93%	7%
Graphic Arts (GA)	58	7	89%	11%
Printing (GP)	15	2	88%	12%
General Studies (GS)	72	53	58%	42%
Industrial Technology (IT)	0	0	0%	0%
Journalism (JO)	13	15	46%	54%
Developmental Studies (LC)	0	1	0%	100%
Library Assistant (LS)	0	0	0%	0%
Lycoming (LY)	0	0	0%	0%
Mechanical Drafting (MD)	34	6	85%	15%
Machinist General (MG)	54	0	100%	0%
Nursery Management (NM)	42	5	89%	11%
Practical Nursing (NU)	1	74	1%	99%
Operating Room Technician (OT)	2	13	13%	87%
Plumbing and Heating (PL)	106	0	100%	0%
Radiologic Technology (RT)	5	21	19%	81%
Heavy Con. Equip. Service and Oper. (SO)	108	0	100%	0%
Sign Painting (SP)	2	1	67%	33%
Tool Design Technology (TD)	4	0	100%	0%
Technical Illustration (TI)	17	2	89%	11%
Toolmaking Technology (TT)	30	0	100%	0%
Unclassified (UN)	195	155	56%	44%
Independent Studies (IS)	12	8	60%	40%
Welding (WE)	43	0	100%	0%
Total	2227	594	79%	21%

IV.A.2

STUDENT BY CURRICULUM BY SEX--FULL TIME--SPRING, 1976

Curriculum	Males	Females	% Males	% Females
Auto Body Repairman (AB)	39	0	100%	0%
Aviation Maintenance Technician (AC)	48	1	98%	2%
Automotive Mechanics (AM)	99	0	100%	0%
Architectural Technology (AT)	51	1	98%	2%
Automotive Technology (AU)	36	0	100%	0%
Accounting (BA)	40	27	60%	40%
Business Management (BM)	67	21	76%	24%
Broadcasting (BR)	37	5	88%	12%
Secretarial Science (BS)	0	71	0%	100%
Clerk-Typist (BT)	0	2	0%	100%
Carpentry & Building Constr. Tech. (CB)	71	0	100%	0%
Construction Carpentry (CC)	181	1	99%	1%
Computer Operator (CO)	7	12	37%	63%
Computer Science Technology (CS)	33	19	63%	37%
Civil Engineering Technology (CT)	42	0	100%	0%
Dental Laboratory Technician (DL)	27	0	100%	0%
Diesel Mechanics (DM)	86	0	100%	0%
Engineering Drafting Technology (ED)	30	2	94%	6%
Electrical Technology (EL)	49	1	98%	2%
Electronics Technology (ET)	78	1	99%	1%
Electrical Construction (EW)	151	1	99%	1%
Food & Hospitality Management (FH)	24	14	63%	37%
Floriculture (FL)	13	24	35%	65%
Forest Technology (FR)	107	9	92%	8%
Graphics Art (GA)	50	7	88%	12%
Printing (GP)	13	2	87%	13%
General Studies (GS)	79	48	62%	38%
Independent Studies (IS)	16	10	62%	38%
Industrial Technology (IT)	2	0	100%	0%
Journalism (JO)	12	15	44%	56%
Developmental Studies (LC)	1	0	100%	0%
Lycoming (LY)	0	0	0%	0%
Mechanical Drafting (MD)	36	6	86%	14%
Machinist General (MG)	53	0	100%	0%
Nursery Management (NM)	39	6	87%	13%
Practical Nursing (NU)	2	97	2%	98%
Operating Room Technician (OT)	0	12	0%	100%
Plumbing and Heating (PL)	107	0	100%	0%
Radiologic Technology (RT)	5	20	20%	80%
Heavy Const. Equip. Service and Oper. (SO)	95	0	100%	0%
Sign Painting (SP)	2	2	50%	50%
Tool Design Technology (TD)	3	0	100%	0%
Technical Illustration (TI)	12	1	92%	8%
Toolmaking Technology (TT)	31	0	100%	0%
Unclassified (UN)	188	177	52%	48%
Welding (WE)	37	0	100%	0%
Total	2099	615	77%	23%

IV.A.3

STUDENT COUNT BY CURRICULUM BY SEX--FULL TIME--FALL, 1976

Curriculum	Males	Females	% Males	% Females
Auto Body Repairman (AB)	34	0	100%	0%
Aviation Maintenance Technician (AC)	41	0	100%	0%
Automotive Mechanics (AM)	106	0	100%	0%
Advertising Art (AR)	8	13	38%	62%
Architectural Technology (AT)	50	3	94%	6%
Automotive Technology (AU)	44	0	100%	0%
Accounting (BA)	51	29	64%	36%
Business Management (BM)	74	23	76%	24%
Broadcasting (BR)	37	6	86%	14%
Secretarial Science (BS)	0	82	0%	100%
Clerk-Typist (BT)	0	0	0%	0%
Carpentry & Building Con. Tech. (CB)	67	0	100%	0%
Construction Carpentry (CC)	173	1	99%	1%
Computer Operator (CO)	6	3	67%	33%
Computer Science Technology (CS)	32	21	60%	40%
Civil Engineering Technology (CT)	36	0	100%	0%
Dental Laboratory Technician (DL)	15	0	100%	0%
Diesel Mechanics (DM)	88	0	100%	0%
Engineering Drafting Technology (ED)	31	3	91%	9%
Electrical Technology (EL)	51	1	98%	2%
Electronics Technology	92	3	97%	3%
Electrical Construction (EW)	137	0	100%	0%
Food & Hospitality Management (FH)	16	20	44%	56%
Floriculture (FL)	10	31	24%	76%
Forest Technology (FR)	97	12	89%	11%
Graphic Arts (GA)	41	8	84%	16%
Printing (GP)	14	3	82%	18%
General Studies (GS)	74	49	60%	40%
Independent Studies (IS)	13	11	54%	46%
Industrial Technology (IT)	1	0	100%	0%
Journalism (JO)	16	5	76%	24%
Developmental Studies (LC)	1	1	50%	50%
Library Assistant (LS)	0	0	0%	0%
Lycoming (LY)	0	0	0%	0%
Mechanical Drafting (MD)	34	2	94%	6%
Machinist General (MG)	53	0	100%	0%
Nursery Management (NM)	37	11	77%	23%
Practical Nursing (NU)	4	73	5%	95%
Operating Room Technician (OT)	1	9	10%	90%
Plumbing and Heating (PL)	94	0	100%	0%
Radiologic Technology (RT)	2	18	10%	90%
Heavy Con. Equip. Service and Oper. (SO)	99	0	100%	0%
Sign Painting (SP)	2	1	67%	33%
Tool Design Technology (TD)	6	0	100%	0%
Technical Illustration (TI)	8	1	89%	11%
Toolmaking Technology (TT)	27	0	100%	0%
Unclassified (UN)	125	170	42%	58%
Welding (WE)	36	0	100%	0%
Total	1984	613	77%	24%

IV.A.4

STUDENT COUNT BY CURRICULUM BY SEX--FULL TIME--SPRING, 1977

<u>Curriculum</u>	<u>Males</u>	<u>Females</u>	<u>% Males</u>	<u>% Females</u>
Auto Body Repairman (AB)	34	0	100%	0%
Aviation Maintenance Technician (AC)	41	0	100%	0%
Automotive Mechanics (AM)	114	0	100%	0%
Advertising Art (AR)	5	15	25%	75%
Architectural Technology (AT)	49	3	94%	6%
Automotive Technology (AU)	48	0	100%	0%
Accounting (BA)	57	37	61%	39%
Business Management (BM)	82	24	77%	23%
Broadcasting (BR)	35	6	85%	15%
Secretarial Science (BS)	0	74	0%	100%
Clerk-Typist (BT)	1	11	8%	92%
Carpentry & Building Con. Tech. (CB)	69	0	100%	0%
Construction Carpentry (CC)	193	0	100%	0%
Computer Operator (CO)	5	5	50%	50%
Computer Science Technology (CS)	39	19	67%	33%
Civil Engineering Technology (CT)	41	0	100%	0%
Dental Laboratory Technician (DL)	37	0	100%	0%
Diesel Mechanics (DM)	87	0	100%	0%
Engineering Drafting Technology (ED)	28	3	90%	10%
Electrical Technology (EL)	65	0	100%	0%
Electronics Technology (ET)	81	3	96%	4%
Electrical Construction (EW)	128	0	100%	0%
Food & Hospitality Management (FH)	17	19	47%	53%
Floriculture (FL)	12	31	28%	72%
Forest Technology (FR)	100	10	91%	9%
Graphic Arts (GA)	57	8	88%	12%
Printing (GP)	11	2	85%	15%
General Studies (GS)	87	50	64%	36%
Independent Studies (IS)	15	21	42%	58%
Industrial Technology (IT)	2	0	100%	0%
Journalism (JO)	14	6	70%	30%
Developmental Studies (LC)	0	0	0%	0%
Lycoming (LY)	0	0	0%	0%
Mechanical Drafting (MD)	29	2	94%	6%
Machinist General (MG)	57	0	100%	0%
Nursery Management (NM)	37	10	79%	21%
Practical Nursing (NU)	4	82	5%	95%
Operating Room Technician (OT)	1	11	8%	92%
Plumbing and Heating (PL)	97	0	100%	0%
Radiologic Technology (RT)	3	17	15%	85%
Heavy Con. Equip. Service and Oper. (SO)	74	0	100%	0%
Sign Painting (SP)	3	1	75%	25%
Tool Design Technology (TD)	8	0	100%	0%
Technical Illustration (TI)	8	2	80%	20%
Toolmaking Technology (TT)	31	0	100%	0%
Unclassified (UN)	165	140	54%	46%
Welding (WE)	39	0	100%	0%
Total	2110	612	78%	22%

EMPLOYMENT STATISTICS

Employment patterns are important for two reasons: hiring, assignment, and salary procedures reflect an institution's commitment in dollars and cents to equal opportunity, especially its commitment to now include women within its structure; and secondly, the kinds of jobs women and men have speak directly to students and the community about the College's perceptions of the employment roles for women and men. Faculty and staff patterns must be reviewed and considered in light of the College's stated concern with ending sex role stereotypes.

Employment statistics for administrative, technical, and special services staff appear in IV.B.1 These statistics reflect data available July 1, 1977.

As is readily apparent women are overwhelmingly clustered in the technical and special services group. Salaries for these people are certainly the lowest among those reported in all the listed categories. The only women listed in any administrative capacity are both coordinators of health programs. In these three groups salaries range from \$14,800 to a top of \$33,000. The two women are paid \$15,000 and \$16,000 respectively, obviously at the bottom end of the range for these categories. Looked at another way, women hold 6% of administrative jobs and 54% of technical and special services positions--the latter with a salary scale of \$5,600 to \$14,715. Of the 20 positions part of the regular college budget, July 1, 1977, not paid for by federal grants, the mean salary in the technical and special services category is approximately \$11,110. The mean salary for women in this group paid from the regular College budget as of July 1, 1977 is \$8,989; for men in this same group the figure is \$12,513--a difference of over \$3,500.

A concern has developed during the first 6 months of 1977 over women being hired to fill positions which are very similar in responsibility to jobs formerly held by men. Now the women have job titles and positions which provide lower administrative status and result in them being paid in several cases only 60% of what the men made. For example, the professional position of Director of Personnel and Employee Relations at a salary of approximately \$17,000 was cut from the College's budget. Responsibilities were redefined and a woman was hired as Personnel Specialist at \$9,500 a year. A similar change was made in the Financial Aid Office with a \$16,000 a year Counselor's position being replaced with one entitled Financial Aid Assistant, salary \$8,500. This job also went to a woman. Although job responsibilities were altered to accommodate these changes made at a time of a tight budgetary situation, a number of College employees have expressed concern about these procedures. Given the low representation of women in the three administrative categories, it is recommended that the College review its personnel procedures to ensure that they have not had the effect of providing opportunities for women staff only in the lower professional categories.

IV.B.2 shows the latest available breakdown of teaching faculty. Women are most frequently found in the Instructor Category with a mean salary of \$11,710. Males in this category have a mean salary of \$12,226. At the Associate Professor level the average salary for the 7 tenured male faculty is \$15,225; the one tenured female receives \$14,742. Such differences are not automatically evidence of pay variation based only on sex. However, when administrative and faculty figures indicate a lack of representation of women and a pay differential between the sexes, it is recommended that the question of rank and salary be carefully

reviewed.

The figures in IV.B.2 on 11/12 month faculty show only 6 faculty members holding such contracts. These are the female nursing faculty who, due to funding sources and state requirements, must be on such a teaching schedule.

Faculty in all the traditionally male programs are themselves male. Women faculty are found in Communications, Humanities, and Social Science; Allied Health; and Business and Computer Science. The last has a mix of males and females. Assignments made by the Division Director tend to have Business faculty at one time or another teaching the full range of classes offered in this area, resulting in students having classes with both female and male teachers.

Classified staff up until July 1, 1977 included 5 males. One worked in the Media Center, 3 in the Computer Center, and one was a clerk-typist in the Admissions Office. The male clerk-typist resigned in July, 1977 and was replaced by a woman. Since that date all secretaries and clerical help are females.

IV.B.1

ADMINISTRATION, ADMINISTRATIVE SERVICES, TECHNICAL AND SPECIAL SERVICES STAFF

<u>POSITION</u>	<u>SEX</u>	<u>SALARY</u>
<u>ADMINISTRATION</u>		
President	M	\$ 33,000.
Dean, Secondary Instructional Services	M	26,300.
Dean, Postsecondary Instructional Services	M	25,100.
Dean of Administration	M	25,000.
Assistant Dean, Community Education	M	21,100.
Assistant Dean, Student & Career Development	M	20,000.
Assistant Dean, Secondary Instructional Services	M	19,300.

ADMINISTRATIVE SERVICES-INSTITUTIONAL SUPPORT

Special Assistant to President	M	21,300.
Director, Computer Center	M	19,300.
Director, Financial Operations	M	18,000.
Director, Physical Plant	M	18,000.
Director, Resource Development**	M	17,900.
Director, Student Activities & Placement	M	17,500.
Director, Financial Aid**	M	16,637.
Director, Business Operations	M	16,000.
Director, Admissions & Records	M	15,000.

ADMINISTRATIVE SERVICES-INSTRUCTIONAL SUPPORT

Division Director, Earth Sciences	M	20,400.
Director, Community Education & Coordinator Physical Education	M	20,300.
Division Director, Business & Computer Science	M	19,800.
Director, Learning Resources Center	M	18,700.
Division Director, Engineering & Design Technologies	M	18,500.
Division Director, Building Technology	M	18,018.
Division Director, Transportation Technology*	M	17,780.
Division Director, Comm., Humanities & Social Sciences	M	17,750.
Division Director, Math, Science, & Allied Health	M	17,750.
Division Director, Electrical/Electronics	M	17,740.
Director, Co-op, PSIS	M	16,500.
Coordinator, Practical Nursing	F	16,100.
Coordinator, Co-op & Placement, SIS	M	16,040.
Coordinator, Dental Hygiene	F	15,000.
Director, Career Development Center***	M	15,000.
Coordinator, Co-op Education & Placement	M	14,800.

IV.B.1
(continued)

<u>POSITION</u>	<u>SEX</u>	<u>SALARY</u>
<u>TECHNICAL AND SPECIAL SERVICES</u>		
Admissions Officer*	F	\$ 14,715.
Assistant Director, Admissions	M	14,540.
Manager, Bookstore	M	14,000.
Coordinator, Media Prod. & Instructional Technology	M	13,665.
Assistant Director, Admissions & Records	M	13,500.
Chief Accountant	M	13,500.
Supervisor, Maintenance	M	13,050.
Community Education Assistant, Industrial Programs**	M	13,000.
Assistant Director, Physical Plant	M	12,500.
Coordinator, Adult Brokerage Counseling Program***	F	12,000.
Career Development Assistant***	F	12,000.
Chief Security Officer	M	11,940.
Applications Programmer	M	11,224.
Supervisor, Custodial	M	10,740.
Community Education Assistant***	F	10,600.
Accountant	F	10,500.
Purchasing Agent	F	10,500.
Communications Specialist	F	10,000.
Personnel Specialist	F	9,500.
Nurse	F	8,873.
Financial Aid Assistant	F	8,500.
Supervisor, Warehouse	M	8,500.
Coordinator, Duplicating and Mail Service	F	8,440.
Career Development Paraprofessional***	F	8,000.
Tot Watch Supervisor/Summer Nurse	F	5,600.

- * - Resigned effective 6/30/77
 ** - Effective 7/1/77
 *** - Federally funded

IV.B.2

SALARIES AND TENURE OF FULL-TIME INSTRUCTIONAL FACULTY 1976-77(PREPARED 9/2/76)A. FACULTY ON 9-MONTH SALARY CONTRACTS

ACADEMIC RANK	NUMBER OF PERSONS (1)	MEN		NUMBER OF PERSONS (4)	WOMEN	
		TOTAL SALARY OUTLAY (2)	NO. COL.I WITH TENURE (3)		TOTAL SALARY OUTLAY (5)	NO. COL.4 WITH TENURE (6)
Professors	3	47,485.	3	0	0.00	0
Associate Professors	7	106,576.	7	1	14,742.	1
Assistant Professors	36	504,982.	31	4	55,872.	3
Instructors	70	855,847.	52	9	105,391.	6
Lecturers	0	0	0	0	0	0
Undesignated Rank	5	81,368.	4	0	0	0
TOTAL	121	1,596,258.	67	14	176,005.	10

B. FACULTY ON 11/12 MONTH SALARY CONTRACTS

		MEN			WOMEN	
		TOTAL SALARY OUTLAY	NO. COL.I WITH TENURE		TOTAL SALARY OUTLAY	NO. COL.4 WITH TENURE
Professors	0	0	0	0	0	0
Associate Professors	0	0	0	0	0	0
Assistant Professors	0	0	0	0	0	0
Instructors	0	0	0	6	78,213.	4
Lecturers	0	0	0	0	0	0
Undesignated Rank	0	0	0	0	0	0
TOTAL				6	78,213.	4

Information obtained from WACC's 1976 Higher Education General Information Survey (HEGIS) Report.

DIVISION BROCHURES AND THE COLLEGE BULLETIN

These items are extremely influential in giving the public an impression of the institution. Although used most extensively by staff of the Admissions Office, division brochures and the Bulletin are also distributed or available through most college offices. The words, pictures, illustrations, courses and services used or described in these publications--designed as they are for the public - provide a clear indication of the institution's self view. Since such pieces of literature are often part of the earliest contact an individual has with WACC, any image both explicit and implicit was closely examined for examples of sex role stereotyping.

WACC has two kinds of brochures. The older type is a 2 fold flyer describing an individual program within a certain Division. The other is an updated Division brochure which includes specifics on all the programs within a single Division plus basic college information of interest to prospective students. (See IV.C.1 for a list of program and Division brochures examined.) The individual program brochures in some cases have inaccurate information about courses or services due to changes instituted since these pieces were printed, and staff at WACC make the necessary corrections when using them with students. There is, however, no guarantee that this is the case in area high schools where counselors have not necessarily replaced these outdated brochures. Such corrections are also not possible when literature is simply available from a display rack. Although Division Directors either felt no responsibility for the old brochures once new ones were completed or were not aware they were still being used, as of May, 1977 outdated individual program brochures were still available for the taking in WACC's Admissions Office and several high schools visited during this project's investigation.

Overwhelmingly the new Division brochures are an improvement over the individual program ones. Not only are they updated in appearance and content, but instances of sex biased language and stereotyped pictures have been greatly reduced. However, since the program brochures are still available or used, presumably until the ones printed are gone, for purposes of this project they were examined for instances of sex stereotyping.

Program brochures in Transportation Technologies and Electrical/Electronics presumed an exclusive male student population by consistently using masculine pronouns and photographs only of males. Words or phrases such as "instrument men" or "auto body repairman" could and should be rephrased. The Transportation Technologies Division brochure, while removing sexist language, still includes only pictures of males in the sections dealing with its specific programs. The new Building Technologies brochure uses no personal pronouns or verbal assumptions that students or people in these fields will be male with the exception of several references to "foreman". This brochure also includes one picture of a female obviously working on some construction project.

The Ornamental Horticulture brochure uses no personal pronouns and two of the six people shown are women. However, these two are shown either standing in a greenhouse with two fellow students or behind a florist shop counter helping a male student with a floral arrangement. These are not balanced by women shown in more active roles such as surveying, landscaping, or working with growing shrubs. The implication is that in horticulture there are "male" and "female" jobs with women assuming the less physically active, indoor

roles. There is also the sentence "...there is a touch of art in all men" in the introduction, one presumes a supposedly generic reference to "people". However, if this interpretation of its intent is correct, more precise wording should be used. The Division brochure uses no sex linked language, but again women are shown working either in a greenhouse or with small plants. Females are absent from photos depicting work in the surveying or forestry programs. The message about "male" and "female" curriculums is again reinforced.

In the WACC Bulletin the masculine pronoun is used in reference to the Mechanical Drafting Program in the Engineering and Design Technologies Division. There are also references to possible employment as a "layout man" and the use of "mechanical man" as well as "foreman". In the program brochures for Tool Design and Toolmaking Technology, all pronouns, examples and pictures are of men. The brochure on Civil Engineering Technology uses the pronoun "he" consistently and pictures only of males. It does include the interesting sentence, "Some women have chosen this field and have been successful". Certainly the language and pictures in this brochure do not reflect that fact. And worse the sentence on women appears condescending implying that although "some women" (tokens, pioneers?) have chosen this field and been successful, Civil Technology is really a "man's job." The Engineering Drafting Technology brochure includes a more straightforward sentence on women "draftsmen" stating. "There are nearly 300,000 draftsmen (including 12,000 women) in this country". The introduction also states an engineering drafting technician - a more desirable phrase than the sex linked draftsman - is "...the man or women". But the message is mixed as masculine pronouns are used to describe students and the one picture of a female has her standing with another student listening to a male instructor. The three pictures where people are shown at work or using drafting equipment include only males.

The Journalism brochure in the Communications, Humanities, and Social Sciences Division has approximately equal numbers of females and males in its pictures but does slip in "newsmen" and "he" once each.

In the Mathematics, Science, and Allied Health Division program brochures were reviewed for Food and Hospitality Management and Practical Nursing. The former, while stating that this is a field for men and women, still uses the pronoun "his" when describing the hospitality manager. The front cover photo shows two women serving food and the other two pictures both include a man and a woman. But upon closer examination the two women represent people doing the kinds of job supervised by a hospitality manager. The only person identified in the manager role is a man. Although the text might state this field is for both women and men, the photographs subtly undercut those words.

The Practical Nursing brochure is, according to the program's coordinator, going to be completely redone as soon as possible. However, the old brochure is still available, and college personnel must correct outdated statements such as the ones on estimated cost of books and supplies and college housing for women which is no longer provided. Even when these errors are corrected the brochure still gives the indication this is a woman's field. The text clearly states the program is open to women and men, but the bold face heading on the first interior panel invites students to earn "that perky white cap". Since nurses who are men do not wear such caps, there is a direct linkage between being an LPN and being a woman. And of 17 people pictured working in the field only one is male. The message that this program and field are open to both sexes would be made clearer by improving the number of men pictured and increasing the variety of work

they are shown doing.

Of the seven brochures reviewed in the Business and Computer Science Area, four have attempted to minimize or eliminate sex role stereotyping. The Accounting brochure once uses a masculine pronoun to describe a student, but also equally divides its pictures between females and males. The one on Computer Operation uses no personal pronouns and again mixes women and men in the photographs. The brochures on Computer Science Technology and Industrial Technology have clear, unambiguous statements such as ". . . and young women can find a place in the profession as easily as a young man" appearing in the first piece, and references to ". . . opportunity for men and women . . ." and ". . . working man or woman" in the second.

In Business Management photographs on the inside of the brochure show female and male students in classes; however, the executive is referred to as "he".

The brochures on Secretarial Science and Clerical Studies are the most guilty of sex role stereotyping in this Division. In the former, the four pictures of secretaries at their jobs show all females. The two men in these photographs are clearly bosses. There is one picture of a mixed female and male typing class instructed by a man, but this does not seem adequate to overcome the image of the on-the-job secretary as always female. Also, the first two sections of the narrative specifically refer to the secretarial student or secretary as "she".

The Clerical Studies brochure not only contains a number of overt examples of sex role stereotyping--assuming only females are clerical workers--but makes condescending references and inaccurate inferences about employed women. These statements assume grown women interested in this career are dependent and child-like ("girl"), lack serious commitment to their work, will choose to make their real priority marriage and motherhood, and that their income will be of secondary importance to that of the man in their life. It is inconceivable that references to one's personal lifestyle and implications that career preparation and employment will somehow play a secondary role would appear in career brochures where even part of the audience was assumed to be male.

The Division Director for Business and Computer Science indicated his agreement with the above criticisms of the Clerical Studies Brochures, and stated that since the new Division brochure has been completed he felt this was the only appropriate one to use and the only one for which he and his Division were responsible. However, as indicated earlier, all of the brochures included in this report were available and in use when this project was being conducted.

The College's Admissions Brochure and the 1977-1978 Bulletin have obviously attempted to minimize sex biased language, although there are still a few examples of the masculine pronoun to describe a student. There are instances in which "he/she" or "his/her" are used, but since this is not consistently done throughout these publications the effect is uneven.

Using the classifications in Schneck's "Guide", the most common sex biased instances found in the College's program and Division brochures are associated terms, attributing gender to generic terms; concealed representation, using

masculine terms to generalize about a mixed group; and diminished existence, ignoring or minimizing the existence of females (or males) in a group assumed to be all one sex. The program brochures are most guilty of sex role stereotyping in that males are assumed to be the audience for the skilled trade areas, females for office and health related positions. A mixed audience is addressed only in the computer, accounting, business management, horticulture, and food management programs, and even there the message is uneven.

Summary

Material used in recruitment or public relations efforts were examined using the Schenck "Guide". Brochures on individual College programs, no longer being produced but still in use at the time of this project, Division brochures, and the College Bulletin were reviewed.

The message and images in program brochures conformed to the traditional classification of occupations along sex stereotyped lines. Skilled trade and craft areas assumed a male audience. Traditionally female areas reinforced the prevailing stereotype by using language or pictures almost exclusively of women. Computer science and business administration brochures made some attempts to convey the message women and men can both appropriately choose these fields. But clerical and secretarial pamphlets were specifically addressed to women, in certain instances conveying a condescending and somewhat frivolous image of females in the work force.

Sex neutral language was on occasion mixed in with sex biased language in the same brochure. In at least one instance a statement on nontraditional students, although probably well intentioned, reinforced the idea that women who choose this field, in this case Civil Technology, would have to be willing to make it in a "man's field." A similar image in reverse is presented to prospective male students interested in practical nursing. Even where illustrations include both sexes it is necessary to do more than a head count and consider what females and males are shown doing. As in the case of the Ornamental Horticulture brochure the sex stereotyped notion that women are not capable of physically taxing work related to this field is reinforced by the photographs used. It is not enough to simply include the nontraditional student; how s/he is included makes all the difference.

There were three instances of straightforward statements on opportunities for nontraditional students, one each in drafting, industrial technology and computer science technology. In examining all the brochures as a whole, however, these three examples stand out as exceptions to the rule.

The new Division brochures do represent a decided improvement over the older program brochures. However, these would be strengthened in the future by more clearcut statements on opportunities for both females and males in particular areas, pictures of both sexes in all the programs represented, and in the more stereotyped occupational areas a straightforward declaration of WACC's interest in having nontraditional as well as traditional students enroll.

IV.C.1

BROCHURES AND CATALOGUES REVIEWED

Admissions Brochures

WACC Bulletin 1977-1978

PROGRAM BROCHURE

DIVISION BROCHURE

Building Technologies

Building Technologies

Business and Computer Science

Business and Computer Science

Accounting

Business Management

Clerical Studies

Computer Operator

Computer Science Technology

Industrial Technology

Secretarial Science

Communications, Humanities, and Social Sciences

College and University Transfer Programs*

Journalism

Earth Science

Ornamental Horticulture

Earth Science

Electrical/Electronics

Electrical Technology

Electronics Technology

Engineering and Design Technologies

Civil Engineering Technology

Engineering Drafting Technology

Tool Designer

Toolmaking Technology

Mathematics, Science, and Allied Health

Food and Hospitality Management

Practical Nursing

Transportation Technologies

Aviation Maintenance Technician

Transportation Technologies

*Responsibility shared with Mathematics, Science, and Allied Health

TEXTBOOKS

The sample of textbooks which were reviewed in each Division are listed in IV.D.1. These were reviewed using the Schrenck Guide with the intent of identifying instances of sex bias which together with other examples of stereotyping would reinforce the impression that some curriculums are for males, some for females. In addition to checking for inclusion of females and males in all areas, what was said about women and men--the images portrayed--was also examined for instances of sex stereotypes.

Texts in the Building Technologies Division either use no personal pronouns or examples or consistently refer to the student or worker in these fields as "he". The only drawings of women were in scenes where a building concept such as insulation against noise or placement of windows was being demonstrated. In these cases the women had no direct involvement with doing any of the work demonstrated, instead they were part of the background scene against which a technical point was being made.

In the 11 books examined in the Electrical/Electronics Division the majority used either no personal pronouns or examples or masculine language throughout. Three did have at least one drawing of women, but they were; 1) a woman in a kitchen waiting for a man to throw a switch so she would be able to use her appliances, 2) female assembly line workers and a secretary demonstrating the benefits of good lighting on the job, and 3) a woman carrying a bag of groceries. Clearly these examples are in no way related to women being students or professionals in electrical or electronics positions. The impression is that the women are background or props against which the men carry out their work.

Half of the Transportation Technologies books used masculine pronouns or pictures assuming students, faculty, and professionals in these areas would be male. Abbott and Hinerman consistently referred to the mechanic --"he", but did include three drawings of women doing mechanical work. Crouse and Anglin use sex neutral language throughout their text and did include a drawing of what appears to be a black woman although the nature of the illustration makes it hard to tell for sure. Crouse used sex neutral language, but his few illustrations of people depict only males. The Abbott text does state in its preface that this work is for men and women. No sex biased language is used and illustrations show only someone's hands although it appears these all belong to men.

In this Division, as in the three described above, the information is technical and, therefore, examples involving people are fewer than in other fields. However, with the few exceptions noted above, the message is clear that males are the ones involved in these fields. The use of the phrase "men and women" or the rare picture of a woman working in these fields, while an improvement over complete exclusion of females, hardly leads to the conclusion that these materials are dealing with stereotyping of occupations by sex.

The Engineering and Design Technologies Division includes a wider variety of programs than perhaps any other Division. They are basically known either as "clean shop" or "dirty shop" and range from such diverse programs as welding and machine shop, to drafting and architecture. A standard text in each area was included in this review.

In every book examined in this Division language, examples, and illustrations refer to males. Simonds' Landscape Architecture begins philosophically discussing the relationship of "man" to his environment beginning with "man the hunter". This section includes passages from history and literature. Man obviously means males and every example is masculine. There are a few line drawings of what appear to be women, but again they are used as a background. This technique of women-as-background is again used by Lotham. The one female in his book is illustrating, through several pictures of her face, color and texture problems in photography.

Forestry and Horticulture texts for the Earth Science Division overwhelmingly assume students and professionals are male. Women are included in Sunset's Basic Gardening Illustrated working with gardens or house plants. Botany has one picture of a women planting, but farmers, botanists, harvesters and others are exclusively male. The text Container Growing specifically states that this field is a good business for a young man, one that can be passed on to his sons. The others uniformly address the students or practitioners as "he" or mention that civilization began when "man" learned to plant and domesticate animals. The textbooks obviously do not reflect women's participation in these fields, particularly horticulture.

In the Division of Mathematics, Science, and Allied Health books were examined in two areas, Food and Hospitality Management and Allied Health.

In Food and Hospitality Management, three of the six reviewed used masculine sex biased language consistently. However, Peckham did include males and females in illustrations in several jobs. Food Service in Institutions clearly refers to the "manager-he", the "leader-he", and the hospital or college dietitian as "she". In this case the authors can not have intended masculine words to be used generically when they use sharp delineation by sex among positions within this field. Lateiner, too, uses language referring to males in some situations, females in others. Workers and supervisors are male, typists and secretaries are female (one being called a "girl"). Lateiner also falls into other stereotypes when he describes the various supervision workers from different parts of the country will need. According to this author New Englanders, as independent Yankees, do not need too heavy a supervisory hand while New Yorkers are generally more insecure due to their not owning their own houses or gardens. People from the hills of West Virginia need the closest supervision of all because in the face of difficulty on the job for whatever reason they are apt to go back to their farms. Stereotypes are based on more than sex in this instance.

Allied Health programs at WACC train people to be nurses, operating room or radiologic technicians-all fields typically assumed to be appropriate for women. Four of the eight books reviewed consistently refer to the doctor as "he" and the nurse, technician, or student as "she". A Manual of Operating Room Technology uses "his/her" in the preface, but resorts in the text to referring to the surgeon and anesthesiologist as male and the operating room supervisor as female. The other three texts reviewed also exclude men from consideration as nurses or technician, but also include highly stereotyped and questionable material on women. Bleier asks the student nurse's opinion on a hypothetical case-"do you consider it unwise for Mrs. Hill to resume working instead of raising her child full-time?" (p.50). This certainly implies that for women the relationship of career and family are generalized topics of public debate rather than individual matters best handled by those involved. Ross, in the preface, briefly discusses the increasing number of men in practical nursing.

However, in a later chapter entitled "Marriage and Your Career" the example given discusses a nurse who is a married woman having domestic troubles resulting from her commitment to her job. Apparently the author assumes only nurses who are female get married. Or more likely the subject of balancing marriage and a career is an appropriate textbook topic only if it applies to women.

Thompson's Pediatrics for Practical Nursing is the most blatantly sex stereotyped health text reviewed. Not only does the author assume all doctors and patients are males and all nurses female, the section on adolescents perpetuates different standards of behavior and appropriate roles and activities for females and males. According to Thompson adolescents need to know their role in life. For girls the crucial factor is their mother's degree of positive or negative feelings on motherhood, for boys it is a secure relationship with their fathers. (pp. 334-335). During adolescence "boys in particular need to test their powers of conquest . . . girls need to feel attractive and desired by the opposite sex." (p.337). In the section on choosing a career, the part specifically addressing females states; "many girls select marriage and motherhood as a career shortly after graduating from high school. They need to be well prepared through home, church, and school for this extremely important role." (p. 338). Since the author includes no other specific career options or information for women, her priorities about a woman's real work are obvious. Not only do the Allied Health books ignore the participation and appropriateness of males in these fields, the information in the last two texts is extremely biased concerning women's "correct" role and the stereotyped differences between females and males. The message would appear to be mixed, however, since it is included in books being used by female students themselves preparing for careers. These books do not even attempt to deal with women's changing participation in the labor force, women's own redefinition of their roles, or the increased opportunities for males in these health occupations.

In the Business and Computer Science Division there are a number of fields traditionally assumed to be exclusively for women such as clerical worker and secretary. Other programs such as computer science related ones are becoming more balanced in terms of participation by both sexes. Fifteen texts covering both kinds of programs were reviewed:

The computer science books all assume students and professionals are male. Four other texts in the fields of accounting, business management and business law, by Anderson and Kumpf, Baumbach et. al., Niswonger and Fess, and Robertson and Perkins, share the common assumption that examples and language should be masculine addressing the student as "he". But when it comes to secretarial texts language noticeably changes. Roat and Byers state in the preface that it is their intention to help prepare young women for positions as medical secretaries. Even if they did not clearly state this, the fact they include selecting and purchasing gifts as part of a secretary's potential duties (p. 15), gives away their assumption about the sex of the student. Both Office Typing and Handbooks for the Legal Secretary clearly define the secretary as a woman, the lawyer or other supervisor as a man. There are simply no deviations allowed. In Unger's real estate text "normal" households are made up of a husband and wife, "non-normal" households might include bachelors, career girls, or

people otherwise not married.. The most sex stereotyped text reviewed in this Division is Claude George's Supervision in Action, the Art of Managing Others. The author, like so many others, describes the supervisor as male. Women employees are shown only as members of the typing pool, as waitresses or secretaries, and they are repeatedly referred to as "girls". When George does specifically discuss women employees it is in wholly different terms than when employees are presumed to be male. "Some women... may look at jobs quite differently from men. For some women, a job may be a temporary thing before marriage, a source of some extra money and social contact. It may not be her life's work, and others may not depend solely on her for support. A man, on the other hand, is frequently the breadwinner... (p. 47). The different and stereotyped assumptions about women and men are obvious. At another point the author asks, "are women different?" He then proceeds to answer this question himself. For him the answer is yes... "women make excellent, loyal employees. Because of their physical make-up, however, they are generally limited in the type of work they can do." (p. 93).

Three texts in this Division have at least acknowledged that sex stereotyping exists in business books and have made some attempts to deal with it. Managerial Accounting uses sex neutral language and examples, Retailing, although most often using male examples and language in describing students, does on occasion use "(s)he". The book most clearly taking steps to tackle stereotyping is Business Today. The authors avoid the use of masculine words to describe people in business, referring instead to "the business person". And it also includes good points about opportunities for women in the field.

Summary

The review of a random sample of textbooks available the summer of 1977 in WACC's bookstore for use in postsecondary courses clearly indicates that they are another reinforcing link in sex role stereotyping. Language, illustrations, examples and the authors' obvious expectations, with a few exceptions, assume students will be of the sex most traditionally associated with a particular field. Specifically, in the skilled trades stereotypes about the student or worker as male were reinforced. Even in the more sex neutral or mixed fields such as computer science or business administration language was clearly sex linked with examples consistently masculine. Arguments stating that in all these areas such words as "he" and "man" were meant to include all people lose their persuasiveness in the light of other considerations. Illustrations and examples specifically include males and exclude females in the trade areas and more often than not in the business areas. The exact reverse happens in materials used in such fields as practical nursing, clerical and secretarial studies, and, to a lesser extent, food service related programs. In these instances language, examples, and illustrations specifically refer to females and exclude or minimize the role of males. These differentiations by sex correspond to and follow traditional assumptions that have at least in part lead to distinct job ghettoization by sex in the labor force. Efforts to correct such sex stereotyping are inconsistent and uneven. When made references to non-traditional students or opportunities for them are too often buried in the a preface and then promptly ignored in the remaining text, or outnumbered and overwhelmed by images of the traditional student. These then reinforce the idea that certain fields are for women, others for men, not withstanding the occasional maverick.

Other texts that included specific material on women treated them in a condescending fashion, discussed them only in the context as family member, ignored women's history and implied their career commitment as a class was different from and less than that of men as a class.

Date of publication is not necessarily a sure way of determining whether or not or to what degree a text is sex stereotyped. Although textbook publishers are supposedly meeting the demands of the marketplace, there is no indication from the texts reviewed by this project that wholesale changes to overcome stereotyping are even now being undertaken by book companies. In certain cases this investigation found books published in 1977 to be more sex stereotyped and biased than ones printed several years ago.

TEXTBOOKS REVIEWED

Building Technologies

J. Ralph Dalzell and Gilbert Townsend, Masonry Simplified,
3rd edition, American Technical Society, 1973

Harry Slater, Plumbing I, Delmar Publishers, 1974

R.M. Starbuck, Questions and Answers on the Practice and Theory of Sanitary
Plumbing, volume I 27th edition, R.M. Starbuck & Sons, Inc., 1977

Joseph Steinberg and Martin Stempel, Estimating for the Building Trades,
2nd edition, American Technical Society, 1973

Elmer W. Sundberg, Building Trades Blueprint Reading, 5th edition,
Part I Fundamentals, American Technical Society, 1972

Willis H. Wagner, Modern Carpentry, Goodheart-Willcox, Co., 1976

Business and Computer Science

Ronald A. Anderson and Walter A. Kumpf, Business Law, Standard Volume
10th edition, South Western Publishing Co., Cincinnati, 1977

Clifford Baumbach, Kenneth Lawyer, Pearce C. Kelley, How to Organize and
Operate a Small Business, 5th edition, Prentice-Hall, Inc., Englewood
Cliffs, 1973

Richard Didday and Rex Page, Fortran for Humans, 2nd edition
West Publishing Co., St. Paul, 1977

William M. Fuori, Introduction to the Computer, 2nd edition
Prentice-Hall, Inc., Englewood Cliffs, 1977

William M. Fuori, Anthony D'Arco and Lawrence Orilia, Introduction to
Computer Operations, McGraw-Hill Book Co. N.Y., 1973

Claude S. George, Sr., Supervision in Action, The Art of Managing Others
Reston Publishing Co. Inc., Reston, Va., 1977

Louis A. Leslie and Kenneth B. Coffin, Handbook for the Legal Secretary,
McGraw-Hill Book Co., New York, 1968

Carl L. Moore and Robert K. Jaedicke, Managerial Accounting, 4th edition
South-Western Publishing Co., Cincinnati, 1976

IV.D.1
(continued)

- C. Rollin Niswonger and Philip E. Fess, Accounting Principles, 12th edition
South-Western Publishing Co., 1977
- Gerald Pintel and Jay Diamond, Retailing, 2nd edition, Prentice-Hall, Inc.
Englewood Cliffs, 1977
- David Rachman and Michael H. Mescon, Business Today, Random House,
New York, 1976
- Charles G. Reigner, Office Typing; A Course in Applied Typewriting,
2nd edition, H.M. Rowe Co., Baltimore, 1974
- Mary Robertson and W.E. Perkins, Practical Correspondence for Colleges,
4th edition, South-Western Publishing Co., 1974
- Kathleen Berger Root and Edward E. Byers, The Medical Secretary; Terminology
and Transcription, 3rd edition, McGraw-Hill Book Co., New York, 1967
- Maurice A. Unger, Real Estate Principles and Practices, South-Western
Publishing Co., 1974

Communications, Humanities, and Social Sciences

- Peter L. Berger and Brigitte Berger, Sociology: A Biographical Approach,
2nd edition, Basic Books, Inc., 1975
- David Burner, Robert D. Marcus, and Emily S. Rosenber, America, A Portrait in
History, Volume I, A New People, Prentice-Hall, 1974
- Lewis A. Coser, Sociology Through Literature, 2nd edition, Prentice-Hall,
Inc., 1972
- Kenneth C. Kammeyer, Confronting the Issues: Sex Roles, Marriage and the
Family, Allyn and Bacon, Inc., Boston, 1975
- Walter Kirchner, Western Civilization to 1500, Barnes & Noble Books, 1960
- Kevin Ryan and James M. Cooper, Those Who Can Teach, 2nd edition
Houghton Mifflin Company, 1975
- Gerald L. Sicard and Philip Weinberger, Sociology for Our Times, Scott
Foresman and Company, 1977
- Brian Tierney, Donald Kagan and L. Pearce Williams editors, Great Issues
in Western Civilization, volume I 3rd edition, Random House, 1976

IV.D.1
(continued)

Earth Science

William M. Harlow and Ellwood S. Harrar, Textbook of Dendrology, 5th edition
McGraw-Hill Book Co. 1968

Hudson T. Hartmann and Dale E. Kester, Plant Propagation, Principles and
Practices, 3rd edition, Prentice-Hall, Inc. 1975

James M. Patterson, Container Growing, American Nurseryman, 1969

David Martyn Smith, The Practice of Silviculture, 7th edition,
John Wiley and Sons, Inc. 1962

Sunset Books and Sunset Magazine, Basic Gardening Illustrated, revised
edition, Lane Publishing Co. 1975

Carl L. Wilson, Walter E. Loomis, Taylor A. Stevens, Botany, 5th edition
Holt, Rinehart, and Winston, 1971

Electrical/Electronics

George M. and Robert D. Chute, Electronics in Industry, 4th edition,
McGraw-Hill, 1971

John R. Duff, Alternating Current Fundamentals, Delmar Publishers, 1963

Bernard Grob, Basic Electronics, 4th edition, McGraw-Hill, 1977

Anthony M. Guravage, Student Notebook, Basic Electrical Construction Lab-
oratory, Theory and Laboratory

Eugene C. Lister, Electric Circuits and Machines, 4th edition, McGraw-Hill,
1968

Orla E. Loper, Direct Current Fundamentals, Delmar Publishers, 1963

Ray C. Mullin, Electrical Wiring-Residential, 5th edition, Delmar Publishers,
1975

Ray C. Mullin and Robert L. Smith, Electrical Wiring-Commercial, Delmar
Publishers, 1977

Samuel L. Oppenheimer, F. Roger, Jr. and Jean Paul Borchers, Direct and
Alternating Currents, 2nd edition, McGraw-Hill, 1973

H. P. Richter, Practical Electrical Wiring, 10th edition, McGraw Hill, 1976

Robert L. Smith, Electrical Wiring-Industrial, Delmar Publishers, 1977

IV.D.1
(continued)

Engineering and Design Technologies

Herbert F. Bellis and Walter A. Schmidt, Architectural Drafting, 2nd edition
McGraw-Hill Co. 1971

Henry D. Burghardt, Aaron Axelrod and James Anderson, Machine Tool Operation Part I, 5th edition, McGraw-Hill Book Co. 1959

John E. Cogoli, Photo Offset Fundamentals, 3rd edition, McKnight Publishing Co., 1973

Department of Education, International Business Machines Corporation,
Precision Measurement in the Metal Working Industry, Syracuse University Press, 1952

Albert G.H. Dietz, Dwelling House Construction, 4th edition, MIT Press, 1974

Frederick E. Giesecke, Alva Mitchell, Henry Cecil Spencer, Ivan Leroy Hill,
Technical Drawing, 6th edition, Macmillan Publishing Co., Inc. 1974

Robert S. Ketzner and Robert M. Rights, Fundamental Problems of Civil Engineering Graphics for Construction Land Planning and Aesthetics
Stipes Publishing Co., 1975

Charles W. Latham, Lithographic Offset Press Operating, Graphic Arts Technical Foundation, Inc., 1956

Lincoln Electric Company, New Lessons in Arc Welding, 1957

William Kirby Lockard, Drawing As a Means to Architecture, Pepper Publishing, 1977

A.D. Pyeatt, Technical Illustration, 2nd edition, Higgins Ink Co. Inc. 1960

John Ormshee Simonds, Landscape Architecture, McGraw-Hill, Inc. 1961

Union Carbide Corporation, The Oxy-Acetylene Handbook, 3rd edition

Mathematics, Science, and Allied Health

Edna Cornelia Berry and Mary Louise Kohn, Introduction to Operating Room Techniques, 4th edition, McGraw-Hill Book Co., 1972

Inge J. Bleier, Workbook in Bedside Maternity Nursing, 2nd edition,
W.B. Saunders, Co., 1974

Victor R. Fuchs, Who Shall Live?, Basic Books, Inc. 1974

IV.D.1
(continued)

Frances Ginsberg, Lillian Shaltis Brunner, Vernita L. Cantlin, A Manual of Operating Room Technology, J. B. Lippincott Co., 1966

Marie V. Krause and Martha A. Hunscher, Food, Nutrition and Diet Therapy, W. B. Saunders, Co., 1972

Alfred Lateiner, Modern Techniques of Supervision, Lateiner Publishing 1968

George LeMaitre and Janet Finnegan, The Patient in Surgery: A Guide for Nurses 3rd edition, W.B. Saunders, Co. 1975

Gladys C. Peckham, Foundations of Food Preparation, 3rd edition, Macmillan Publishing Co., 1974

Carmen F. Ross, Personal and Vocational Relationships in Practical Nursing, 4th edition, J.B. Lippincott Co., 1975

Guy H. Simmons, A Training Manual for Nuclear Medicine Technologists, DHEW Public Health Service, Bureau of Radiological Health, 1970

Anne R. Somers, Health Care in Transition: Directions for the Future, Hospital Research and Educational Trust, 1971

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SELECTED COMMENTS AND OBSERVATIONS--POSTSECONDARY DIVISIONS AND PROGRAMS

Building Technologies Division

Enrollment figures reveal that programs in this Division attract only males. A recent lone exception to this rule was one woman who graduated from Construction Carpentry in the spring of 1977. Having no previous carpentry experience, she entered the program on her own initiative deciding to learn a skill she would enjoy using and one which could support her financially. Her picture appears in the Division's new brochure.

Within the last eight years there have only been two women students--one was successful, the other dropped out after two semesters. In the latter case there was no attempt at that time to determine if her leaving might be in part attributed to problems she faced as a nontraditional student in a male dominated program.

As in the Transportation Technologies Division, bathroom facilities for women are inadequate. The only available women's bathroom is at the other end of the building in the College Bookstore. This arrangement could probably accommodate 10-12 women students, but more would be a problem.

The Division Director felt there would be no special problems in having women enrolled, although he felt some of the first semester heavy block work might not appeal to females. He perceived no problems between male faculty and students and the women in Construction Carpentry, although the one who graduated in 1977 indicated she had felt some resistance and resentment during the first weeks. This lessened over a period of time, in her opinion. This same woman did indicate she was behind fellow students when she first entered in basic familiarity with carpentry concepts and tools, but she eventually did catch up. The Division Director also felt that other women might initially face this same problem. However, his most specific concern came with the problems he foresaw in job placement for nontraditional students after they left WACC. His knowledge of the local employment scene made him dubious of local opportunities for women, although he felt that was an attitude which eventually would break down. Until such societal attitudes change he felt women would still have trouble getting construction jobs in WACC's service area.

Noncredit Community Education courses on household maintenance and repairs always attract more women than the regular full-time programs. Apparently learning a hobby or how to be handy around the house is acceptable for some women while there still are barriers and stereotypes associated with using these skills on a full-time basis to earn a living.

Expanding basic Community Education courses in this Division should be explored as a vehicle for breaking down barriers that seem to inhibit women from even considering acquiring the skills taught in these programs.

Business and Computer Science Division

This Division includes curriculums increasingly mixed in terms of females and males, such as Business Management, Accounting, and Computer Science, while others lead to extremely sex stereotyped occupations such as clerical and secretarial workers.

The Division Director himself and his faculty are very involved both in admissions and placement. Active advisory councils also participate by providing leads and contacts on prospective students and employers. In certain situations, the Division Director felt a woman might have a slight edge in placement in those fields where men are still greatly in the majority. Although females are starting to enroll in fields like business management and accounting which have been considered the province of males, men are not enrolling in the traditional female occupational programs in the Division. According to the Division Director there has never been a man enrolled in the Secretarial Science program, although a few at various times have been in Clerical Studies. Some men do enroll in individual courses such as typing, office procedures, business machines, however. This enrollment by men has increased over the past few years. The Division Director stated he felt all his faculty would welcome male students in their classes.

Female sex stereotyped curriculums correspond to business related jobs at the bottom end of status and pay scales. In other words, it is more than image and appearances keeping men from these programs. By and large males' career orientation leads them to expect more money, status, and authority than that usually associated with a secretarial or clerical position. It is not only the idea of doing "women's work" which keeps them away. In all likelihood it is also the wage for "women's work".

Male students should continually be encouraged to take individual courses most associated with "female curriculums". This could well have the advantage of giving the men an appreciation for the skills necessary in these kinds of jobs in addition to providing them with this useful knowledge themselves.

The Business and Computer Science Division is the only one currently providing opportunities for obtaining a degree at night. The Division Director stated that typical students would be an employed male anxious to upgrade certain skills and a woman reentering the job market. As the night school continues to develop its curriculum and recruitment methods should be developed to specifically overcome sex bias and stereotyping. The night school has the potential to be a tool in attracting the nontraditional student not now being reached or served.

Earth Science Division

Women students in the Earth Science Division have most usually been found in the Floriculture program, but in the 1976-1977 academic year 12 women started in Forestry. The Heavy Equipment program has never had a woman student and a female would be a rarity in Nursery Management. According to the Division Director, recruitment of a class for a particular program can be an up and down thing from year to year. Efforts to attract nontraditional students could be beneficial to this Division.

The Division Director felt there had been no special problems with having women in his facility, that the women and men mixed well socially and in the classroom. From his perspective faculty reaction to female students had not been appreciably different than to males.

The Division Director expressed some concern about employment possibilities for women in such fields as forestry or nursery management and by implication, heavy equipment. In this vein, during the 1976-1977 academic year, a female student felt she had been discriminated against by an employer interviewing on campus. In the past, according to the Division Director, another woman and a black student had also claimed employer discrimination. No direct follow-up was done with the employers, although in the instance occurring during this study, staff of the Division of Student and Career Development did review the incident. No specific action was taken. The incident was dealt with as a single instance not requiring a general review of college policy concerning campus employers and/or recruiters possibly guilty of discrimination. Such a review should be undertaken since more than one instance has surfaced.

Women's lack of physical strength is, in the mind of the Division Director, a factor and a deterrent to their participation in any numbers in certain programs. He felt it would take a large, heavy female to equally handle tasks required in certain occupations; even if females and males are the same size the men will be stronger, generally enabling them to better handle heavy work. However, if strength and physical ability are a concern in determining a student's probability of success in a field, these standards should be applied to all student's not just females

CETA positions allocated to Earth Science are provided on an equal basis to females and males. In 1977 of 15 CETA positions, 10 went to women who were expected to do the same work as the men.

Although a few females have chosen the nontraditional programs in this Division and there are men in Floriculture, it appears that under existing circumstances and with no special efforts it will be difficult to appreciably break down sex stereotyped barriers.

Electrical/Electronics Division

Although nationally women are workers in both the electronics and electrical industries, the WACC programs typically have only males enrolled. During the 1976-1977 academic year there were two females enrolled in Electrical Construction. Both dropped out, according to the Division Director, because they were apprehensive about a particular instructor they would work with the next semester. However, since there was no effort made to determine precisely why they left or what problems they faced as women in these curriculums, such reasons fall within the realm of speculation.

The Division Director says he would like to see women enter his programs and can't understand why they don't. He feels women could readily find jobs with skills in these fields, that whole new areas like biomedicine require workers with an electronics background, and that by and large the work is not physically taxing, and he has seen women adequately handle these tasks.

Faculty attitudes in this Division could be a problem, but the Division Director anticipated no adverse student reaction if more women enrolled. Women's bathroom facilities are barely adequate, but at least they do exist.

As in other Divisions in the past noncredit Community Education courses such as small appliance repair have attracted significant numbers of women.

Offering such courses on a regular basis should be encouraged as a vehicle for introducing increasing numbers of women to such skills.

There have been no special efforts to recruit women into this Division or to offer support to those who on their own have become students. Given the overwhelmingly male orientation of these curriculums these must be considered necessary steps if enrollments are to become more balanced on the basis of sex.

Engineering and Design Technologies Division

Programs in this Division range from such traditional male fields as welding and machine shop to graphic arts, the latter being fields which women are increasingly entering. The Division Director has noted an increase in women students in this program, particularly over the last six years. Faculty reactions to these changes range from "good" to "enthusiastic". When women began entering some of these fields for the first time the male students' reactions were mixed. However, the Division Director felt the recalcitrant male would now be the exception. Employment possibilities for women in these occupations are good with an occasional company strongly implying they are particularly interested in hiring females.

It is a different story in the welding and machine shop programs. Women have not been enrolled in these curriculums as regular postsecondary students. Working in conjunction with CETA (Comprehensive Employment Training Act) two specialized machine operator training programs were run at WACC in 1976. One ran November 29, 1976--March 14, 1977; the second, March 28, 1977--August 17, 1977. In the first group there were 16 women and three men; in the second, 14 women and five men. Although adults whose program was funded from sources designed to work with the unemployed or underemployed, while students at WACC they were working in the machine shop at the same time as regular postsecondary students. The number who completed the two programs were six women and no men in the first group, and eleven women and four men in the second. In both groups, 100 percent of those finishing the program were placed in jobs. The higher percentage of those completing the program the second time it was run was due, in the Division Director's opinion, to better screening of applicants and a greater sense of familiarity and confidence on the part of WACC personnel involved. Faculty reaction anticipated the worse predicting that the women would not be able to do the work to fears that machinery would end up broken. There was some negative reaction also, when a faculty restroom was made into a women's bathroom in the machine shop. However, experience with the two CETA groups and the success of some of the women participants has helped to break down at least part of the stereotyped, negative attitudes.

The welding shop has no bathroom facilities for women. They would most likely have to use the one in the Electrical/Electronics Division. Welding can be heavy dirty work, and WACC's facilities for this program are far from aesthetically pleasing for anyone. The Division Director felt that some faculty might actually discourage a woman from enrolling because of their belief in the inappropriateness of these jobs for females. Although the Division Director hoped in that case he could work with such faculty members, he anticipated it would be difficult to re-educate them on this issue. Since there is no problem in attracting students to this program at present, procedures actively encouraging women to enroll would seem unnecessary and inappropriate to some.

The Civil Technology program, housed in still another setting, also has no women. However, the Division Director believes faculty here would welcome women students. This program is in the same building as Building Technologies so women students would have to use the small bathroom off the Bookstore offices-- a minimally satisfactory arrangement at the present time.

The Division Director noted several areas that would need attention and work if enrollments were to become more balanced between males and females. First, guidance counselors would have to be convinced it is appropriate for females to consider and enter these nontraditional fields. His experience to date with local counselors convinced him few encourage females to expand their horizons beyond traditional possibilities. The few who are concerned with the problem tend to offer moral support rather than actually doing anything to expose females to the career possibilities available through this Division.

Women need to be actively recruited for the Division's Advisory Council. He is hopeful that once more established, a graduate of the CETA machinist program could serve on this body. Such women would serve as role models and could be useful in recruiting efforts. Women faculty could serve much the same purposes. However, in both instances, until more women enter and succeed in these kinds of fields, such individuals are hard to locate.

Practical Nursing Program

This is a one year training program with a female coordinator responsible to the Division Director for Mathematics, Science and Allied Health. The program is funded approximately 75 percent by Vocational Education Funds and 25 percent by the College. The Practical Nursing program must follow regulations and practices set by the State Board of Nurse Examiners as well as general College policies. Six women faculty members are full time College employees working on a 12 month contract as opposed to all other teaching faculty who are on 10 month contracts. Presumably male faculty in the Practical Nursing Program would also have the same pay scale and contract standards applied to them now in effect for all female faculty. Some dissatisfaction with the small amount of extra money for the longer contract period has been expressed by the faculty, and apparently, some have questioned whether this is because they are women. This suspicion is hard to document, however, as there are no males teaching in the program and there is no other comparable faculty group with whom to draw comparison.

There have been male students, occasionally two at a time. The Program Coordinator feels it is better to have more than one male in a class to lessen their feelings of being different. Having male students has, in general, caused no special problems in classroom behavior, job assignments, or after graduation placement, according to the Coordinator.

One incident this year with a male student caused a problem and was brought to the attention of a number of College staff including the President. WACC's student nurses' uniforms for the 1976-1977 academic year are pink, a color chosen simply because it was the only one available from uniform companies which some other group at the two cooperating hospitals was not already using. It is accepted practice that students should be clearly identifiable when in health care institutions to avoid being mistaken for professional staff. The

one male student objected to wearing pink saying he was being teased and humiliated because of his uniform color. The Division Director and the Dean sided with the student, and after some time he was allowed to switch to a white uniform. According to the Program Coordinator, who checked with all the other comparable nursing programs in the state, they, too, allow their male students to wear white.

By allowing the WACC male student to have special treatment and to deviate from other students' required uniform, the idea of differentiating treatment on the basis of sex was reinforced. White is also the color most associated with professionals in health fields. The male student's uniform now indirectly provides him this professional status while the female students, in their distinctive pink uniforms, clearly have the status of trainees.

Placement of graduates is very easy as the Program Coordinator estimates there are usually 100 job openings for every 45 graduates. However, salaries do not exceed \$7,000--\$8,000. To the Coordinator's knowledge there have never been any specific requests from potential employers for a "nontraditional" graduate. She did state there in her opinion since most men are supporting a family, they will not be satisfied with this salary range, and if they stay in the field may well go on for more training. The idea that men are the only ones who are principle wage earners for families and thus will be dissatisfied with the low pay needs to be rethought. This is supported by the fact approximately 50% of the nursing students at WACC are older than the 18-22 year old model of a college student and presumably have a great concern with securing their own economic futures.

Transportation Technologies Division

Programs in this Division are clearly ones traditionally assumed to be for males. Although there have occasionally been women in an automotive program, enrollment figures show that they are usually completely filled with men.

A very real obstacle to women's enrollment in this Division is the lack of adequate bathroom facilities for them. There is no bathroom at all for women at the site of the Diesel Mechanics or Aviation Maintenance Technician programs. In the Division's main building built in 1971 the only restroom suitable is a single facility off the conference room accessible directly from the secretary's office. Obviously the only female intended to use this building on a regular basis was a secretary. Both the College and the architect must share responsibility for allowing the building to be constructed this way.

When interviewed the Division Director (who resigned from this position 6/30/77 to resume teaching fulltime) raised a number of concerns about women students. One was recruitment since standard methods continue to produce all male classes. He personally had gone in the previous academic year to two high schools to specifically talk with female students. His reasoning was that if women were to be recruited into his Division at the postsecondary level he would need to reach females currently in academic rather than vocational programs. Secondary vocational enrollments are themselves heavily influenced by sex stereotyping and prospective female students are not likely to come from this source. Unfortunately, on these visits the students refused to take seriously his suggestions to consider such fields, and one counselor involved was openly hostile about females even considering such fields. Without the proper support, preparation, and consistency such individual and sporadic efforts will yield

very limited results.

The Division Director also had some concern that women would be physically unable to handle the work in particular programs. Concern for the physical abilities and capacities of potential enrollees should apply to everyone. If it is appropriate to test and measure applicants' physical abilities before they enroll, then these standards should be applied uniformly.

Due to differences in socialization, males as a group have an edge over women in past experience with tools and mechanical terms, knowledge the average male would be more likely to have had opportunities to acquire than a female. Acknowledging this difference should not be construed as an excuse to avoid recruiting efforts aimed at women. Toward this end the Division Director felt that some kind of mini-course to provide basic information could be very helpful to those women (and men) who lack significant experience working with basic equipment used in this Division but who are mechanically inclined and motivated enough to enter these programs.

One of the best ways to break down stereotypes, according to the Division Director, would be to hire a female instructor. Unfortunately, there are no faculty openings and he felt it would be difficult to find a qualified woman in this region if an opening did occur.

Transportation Technologies is a solidly male bastion. To even make a dent recruitment procedures and materials need to be directed at nontraditional students. This would require commitment to these efforts from the Division Director if not from all members of the faculty. The bathroom situation will have to be corrected which in and of itself will be a consciousness raiser on the whole subject of women's participation in these programs.

ATTITUDINAL SURVEY

Rationale

In the course of the project investigation, it became apparent that an indication of faculty and students' beliefs and feelings about the changing participation of women and men in vocational education would be useful information. Evidence at WACC indicated that sex biased attitudes on the part of faculty members and also students was potentially one of the greatest stumbling blocks to instigating wide ranging efforts to break down stereotypes.

Methods

To assess attitudes toward sex roles a set of 18 attitudinal statements was developed. The set measured respondents' degree of agreement or disagreement with stereotyped statements about women and men in the areas of education, career options, family role, aptitudes and leadership. Samples of the sets are attached as IV.F.6.

Statements such as "When planning for a career females should consider technical and skilled jobs that traditionally have been for men only" and "A woman should not return to work or school if her husband objects" were to be evaluated on a five point scale from "strongly disagree" to "strongly agree". The items were scored so that an endorsement of traditional sex roles received the greatest weight. For example, on the first statement given above, a "strongly disagree" response was scored 5, whereas for the second statement a "strongly agree" response was scored 5.

It was determined to survey all fulltime faculty, all fulltime female students, and a sample of fulltime male students. To insure that each program was covered students were sorted by program by sex. For males each sixth (6th) student was included in the sample. For programs with less than six males enrolled at least one was included in the survey sample. The only identification requested was the individual's program and Division at WACC. All female fulltime students were included in the sample because they comprise such a distinct minority within this population--approximately 23%. The sample of male fulltime students was selected in such a way as to maximize the number of individual programs represented. The College Computer Center compiled the actual sample.

There were a number of problems with distribution and then cooperation in completion of the survey. For students, there was no systematic way to distribute the questionnaires as the College has no method of distributing mail to them. Mail must be sent to students' home addresses, and the College has no way of knowing an individual's local address unless s/he reports it voluntarily to the Records Office--something almost never done. Only one Division has a system of on-campus student mail boxes. Questionnaires were generally delivered to individual faculty or advisers with the request that they be passed on to the students. It is most likely that a certain percentage of student questionnaires never reached the targeted individuals. Faculty questionnaires were placed in their mail boxes in the Division Office and were, therefore, sure to be received.

This surveying approach was unprecedented at WACC. The rate of completion

and returns were effected by: 1) problems of distribution of student questionnaires, 2) no possibility of systematic follow-up to ensure completion and return, 3) the subject of the questionnaire and, in effect, perceptions of the worth of the research project as a whole, and 4) unfamiliarity and inexperience with such a survey.

The means of the responses were computed for each of the 18 statements, and for the total of all 18 statements, for 5 groupings of related statements and for 12 categories of respondents. See IV.F.1 through IV.F.4.

Differences between means for the several categories of respondents were weighed for statistical significance at the 5% level where

$$Z > 1.96 \text{ and } Z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} - \frac{s_2^2}{n_2}}} \quad \text{and} \quad s = \sqrt{\frac{n(\sum x^2) - (\sum x)^2}{n(n-1)}}$$

It should be noted that WACC does have a computer processing center, but does not have the appropriate computer programs for statistical analysis beyond simple calculation of the means. Therefore, more sophisticated and detailed analysis of the data in the attitudinal survey was beyond the budgetary limits of this study.

The 18 attitudinal statement responses were grouped into five categories with each category including four related statements. The exception was education which included two statements. Thus, n was defined in IV.F.1 as (number of respondents) x (number of statements in the category). For example, in the category career options, male students, gender-neutral, with a mean score of 2.38, n was equal to 9 x 4 or 36.

Student Sample

As noted above, attitudinal sets were distributed to all fulltime female students and to one in every six fulltime male students with a minimum of one per program. Refer to IV.A.1 - 4 for Spring 1977 enrollment figures. Problems with distribution are also noted above.

A total of 116 sets were returned undeliverable or grossly incomplete, 37 male and 79 female. A total of 322 completed sets were returned, 147 male and 175 female.

The completed sets were divided into program groups as follows, separately for each sex. For some programs no completed sets were returned. The programs listed below are only those for which at least one completed set was returned and included in the final sample.

MALE TRADITIONAL PROGRAMS (NON-TRADITIONAL FOR FEMALES)

Auto Body Repairman (AB)	Forest Technology (FR)
Aviation Maintenance Technician (AC)	Graphic Arts (GA)
Automotive Mechanics (AM)	Printing (GP)
Architectural Technology (AT)	Industrial Technology (IT)
Automotive Technology (AU)	Journalism (JO)
Business Management (BM)	Mechanical Drafting (MD)
Broadcasting (BR)	Machinist General (GM)
Carpentry & Building Con. Tech. (CB)	Nursery Management (NM)
Construction Carpentry (CC)	Plumbing and Heating (PL)
Computer Science Technology (CS)	Heavy Con. Equip. Service and Oper. (SO)
Civil Engineering Technology (CT)	Sign Painting (SP)
Diesel Mechanics (DM)	Tool Design Technology (TD)
Engineering Drafting Technology (ED)	Technical Illustration (TI)
Electrical Technology (EL)	Toolmaking Technology (TT)
Electronics Technology (ET)	Welding (WE)
Electrical Construction (EW)	

Sample: Male 119; Female 39.

FEMALE TRADITIONAL PROGRAMS (NON-TRADITIONAL FOR MALES)

Secretarial Science (BS)	Practical Nursing (NU)
Clerk-Typist (BT)	Operating Room Technician (OT)
Food & Hospitality Management (FH)	Radiologic Technology (RT)
Floriculture (FL)	

Sample: Male 19; Female 57.

GENDER-NEUTRAL PROGRAMS (MALE AND FEMALE)

Accounting (BA)	Independent Studies (IS)
Computer Operator (CO)	Unclassified (UN)
General Studies (GS)	

Sample: Male 9; Female 79.

Hypotheses--Student Attitudes

1. With reference to the Lewis and Kaltreider study of secondary vocational education students, it was expected that male students would hold significantly more traditional attitudes toward sex roles than female students.

2. The Kane, et.al. study of female postsecondary vocational education students led to the expectation of small/but significant differences in attitudes between students enrolled in traditional, non-traditional and "mixed" or gender-neutral programs.

3. Further it was expected that the attitudes of students in gender-neutral programs would be intermediate between traditional and non-traditional student attitudes, with traditional students holding the most traditional view, and non-traditional students the least traditional.

Findings--Male And Female Students

In total, male student responses were significantly more traditional in attitude than those of female students to each statement in the attitudinal set, (See IV.F.2). Although male student attitudes were more traditional than female attitudes in each of the five, issue related categories of statements, no significant difference between male and female students in gender-neutral programs could be found for two statement categories: Career Options; Education. (See IV.F.1).

In total, female students gave the most traditional responses in the statement category, Career Options and the next most traditional responses in the area of Family Role while male students were most traditional about Family Role and then Career Options. Female and male students, in total and in each program group, gave the least traditional response in the area of Education.

The hypothesis that male students at WACC would hold more traditional attitudes than female students is confirmed, with the qualifications noted below for the gender-neutral and traditional program groups.

Another difference was found between male and female responses to the attitudinal set, to wit: female students indicated "uncertain" 10.7% of the time and indicated "strongly", (agree or disagree) 54.6% of the time, whereas males were "uncertain" 19.9% of the time and felt "strongly" only 26.9% of the time. (Similar sex differences were observed for faculty respondents--see below).

Findings--Female Students

Non-Traditional (NT) vs. Traditional (T)

Female NT students were less traditional in attitude than were those in traditional programs, but the differences between the two groups were significant in only two areas: Career Options; Aptitudes and Traits. See IV.F.1 . However, when examining individual statement responses in the category of Career Options, specifically numbers 4 and 16, NT student responses were virtually identical to both statements, while T students responded more traditionally to the idea of women considering customarily male careers (#4) than they did to the idea of men entering customarily female careers, (#16). See IV.F.3 . In the comparison of statements #4 and #16, NT female student responses resembled those of only one other student group--male students in traditionally male programs.

Gender-Neutral (GN) vs. Non-Traditional (NT)

As predicted, female students in GN programs, generally were slightly more traditional in attitude than were female NT students except in the area of Leadership and Authority, but in no statement category were the differences significant. See IV.F.1 . However, in examining individual statement responses, significant differences were found in the area of Career Options, specifically statements #16,

#2, and #13. In the case of statements #2 and #13, GN student responses were more traditional but for statement #16--men should enter traditionally female fields--NT students gave the more traditional response. Also, as was the case with T students, GN students were less traditional in attitude to the idea of men entering "female" fields than they were to the idea of women considering "male" fields. See IV. F. 3.

Traditional (T) vs. Gender-Neutral (GN)

Again as predicted, female students in GN programs were less traditional in attitude than were those in T programs and the differences between these two groups were significant in three areas: Career Options; Aptitudes and Traits; Leadership and Authority.

Female students in T programs agreed with male students in T programs in their mean response to statement #4--women considering "male" careers.

While the means of the responses of female students in GN programs were generally intermediate between those of NT and T students, they were closer to those of NT students. This result is consistent with the results of the Kane et. al. study.

Findings--Male Students

Non-Traditional (NT) vs. Traditional (T)

Male students in NT programs expressed less traditional attitudes than did male students in T programs, but the only area of statistically significant difference was in the category: Aptitudes and Traits. See IV. F. 1 and IV. F. 3.

Gender-Neutral (GN) vs. Non-Traditional (NT)

Contrary to expectations, the male students in GN programs expressed the least traditional attitudes toward sex roles, among the three groups of male students, except in the category: Aptitudes and Traits, where males in NT programs were the least traditional. However, the difference between GN and NT groups was significant in only one category: Career Options. See IV. F. 1.

Traditional (T) vs. Gender-Neutral (GN)

Following expectation, the male students in GN programs expressed less traditional attitudes than T males but the difference was significant in just one area: Career Options. See IV. F. 1.

Implications--Student Attitudes

1. Student respondents at WACC appeared to retain traditional societal attitudes toward appropriate career and family roles, especially for women. Students of both sexes apparently believe in the primacy of family functions for women. This suggests that students surveyed may overestimate the proportion of women's lives spent in the home and underestimate the proportion spent working outside the home.

2. Unlike other student groups, NT female students and T male students, i.e., males and females in traditionally male programs, may share a lower evaluation of traditional "women's work". This suggests that there may be reluctance on the part of male, (and some female,) students to enter traditionally female fields because of their low status and/or low pay. Further study is needed to analyze why more men do not enter "women's" careers.

3. The attitudes shown by students of both sexes in GN programs and, to some extent by male students in NT programs, suggest that integration of classes by sex with an equal or greater number of female students tends to break down sex role stereotyping. It further suggests that the immediate opportunity for further reduction of sex role stereotyping lies within the GN and traditionally female programs and that, not suprisingly, the greatest difficulty lies within the traditionally male programs.

Hypothesis--Faculty Attitudes

It was expected that female faculty would express less traditional attitudes toward sex roles than male faculty. Female faculty, at the very least, do have full time careers in addition to whatever family obligations they may have assumed.

Findings--Faculty Attitudes

Findings--Male and Female Faculty

Male faculty respondents at WACC held more traditional attitudes than those of female faculty respondents with the exception of male humanities teachers' attitudes toward Education. See IV. F. 1. (Note that female faculty respondents were treated as one group because their numbers were too small to be considered meaningful when separated into program groups.)

As were the students, faculty respondents were most traditional in attitude about Family Role and Career Options. Female faculty were more resistant to women considering "male" careers than they were to men considering "female" careers. Male faculty were virtually equally resistant to either idea, except those males in the humanities who were slightly more resistant to men entering female fields than they were to women entering male fields. See IV. F. 4, statements #4 and #16.

The responses of faculty and students of the same sex were notably similar. See IV. F. 2. Also, the pattern found among students that males were "uncertain" more often than females and that females felt "strongly" more often than males was repeated among faculty respondents. Female faculty were "uncertain" 5.6% of the time and felt "strongly" 72.2% of the time, whereas males were "uncertain" 19.1% and felt "strongly" 32.6% of the time.

Findings--Female Faculty

Note that at WACC there were no female faculty teaching in non-traditional vocational programs, i.e., no female faculty in traditionally male programs. However, female humanities teachers do teach liberal arts courses in which some male students from traditionally male vocational programs are enrolled.

Female faculty responses were sharply and significantly less traditional than all other group responses in the area of Aptitudes and Traits. See I.V.F.1.

Indeed, female faculty were the least traditional in attitude of all groups except in two areas: 1) They were more traditional than female students in the area of Family Role and, 2) They were slightly more traditional than male humanities teachers in the area of Education. However, these two differences were not found to be statistically significant.

Female faculty were slightly less traditional than female students, (except in Family Role attitudes), but only in the area of Aptitudes and Traits were the differences significant.

Comparing total male and female faculty, the women gave the more traditional response to one statement, #4, concerning women considering customarily male careers.

Findings--Male Faculty

Humanities (H) vs. Traditional (T)

Male faculty in H courses were by far the least traditional of all male faculty respondents. Except in the area of Aptitudes and Traits, male H faculty responses did not differ significantly from those of the female faculty. See I.V.F.1. Further, males in this group (H) held the least traditional attitudes toward Education of all groups surveyed.

At the other extreme, traditional (T) male faculty were the most traditional in attitude of all faculty groups and only slightly less so than male T students. In fact, the least variance in attitude was between male faculty and male students in T programs.

Although the differences between male H and T faculty were found to be significant in all five categories, a look at I.V.F.4 shows H faculty were just as traditional in attitude as T faculty toward statements #10 and #8 having to do with women yielding to their husbands' objections and women's need to achieve.

Gender-Neutral (GN) vs. Humanities (H)

Male faculty in GN programs held significantly more traditional attitudes than male faculty in the H courses in three of the five categories: Career Options; Family Role; Leadership and Authority. Male faculty in GN programs were the most traditional, (of all faculty groups), in the area Leadership and Authority.

Comparing male faculty and male students in gender-neutral programs, the students were less traditional in three areas albeit not significantly so. It is also conspicuous that the male students in GN programs held the least traditional view among male students toward Leadership and Authority while their male teachers held the most traditional view of all faculty groups.

Traditional (T) vs. Gender-Neutral (GN)

The male faculty in GN programs were less traditional than male T faculty

except in the area of Leadership and Authority but significantly so only in the category of Education. Although overall the attitudes of the male faculty in GN programs were intermediate between those of the male T and H faculty, their attitudes were closer to those of the male T faculty. See I.V.F.4.

Faculty Attitudes--Implications

1. The simple fact that the faculty at WACC is predominantly male (87%) and that the male faculty surveyed held relatively traditional attitudes toward sex roles led to the conclusion that students were working in a largely sex stereotyped atmosphere. Such a climate may well have functioned, at least covertly, to limit the student's vocational aspiration to those fields traditionally deemed appropriate for her or his sex.

2. The finding that male humanities teachers expressed attitudes far less traditional than all other male groups surveyed led to the supposition that it may be possible, perhaps through educational means, to break down sex role stereotyping by instructors.

3. The finding that female students and students of both sexes in gender-neutral programs were moving away from sex stereotyped attitudes made the contrary attitudes of their instructors of particular interest and concern. Further, the Kane, et.al. study showed that "mixed" programs may serve as a transitional step for female students from traditional to non-traditional career goals. Thus, further study is needed to determine, for instance, why male instructors in gender-neutral programs should express the most traditional attitudes, of all groups surveyed, toward the statements "women have less need to achieve . . ." and "men make better bosses than women."

IV.F.1 ATTUDINAL SURVEY MEAN SCORES BY ISSUE RELATED STATEMENT CATEGORIES

		S T U D E N T S			
		Non-Traditional	Gender Neutral	Traditional	Total
<u>Career Options</u>					
Statements:	female	1.93	*2.00B	2.20A	2.00
4,16,2,13	male	2.95C	*2.38B	2.98	2.93D
<u>Family Role</u>					
Statements:	female	1.88	1.95	2.08	1.98
3,10,12,18	male	2.95	2.75	3.08	3.03
<u>Aptitudes & Traits</u>					
Statements:	female	1.68	1.70B	1.90A	1.75D
6,7,15,9	male	2.33	2.60	2.73A	2.68
<u>Leadership and Authority</u>					
Statements:	female	1.55	1.53B	1.75	1.60
17,5,8,14	male	2.48	2.20	2.58	2.58D
<u>Education</u>					
Statements:	female	1.40	*1.55	1.60	1.50
1,11	male	2.00	*1.95	2.30	2.25D

		F A C U L T Y			
		Humanities	Gender Neutral	Traditional	Total
<u>Career Options</u>					
Statements:	female	1.68	2.25	2.23	*1.90
4,16,2,13	male	*1.98C	2.50	2.82A	2.58D
<u>Family Role</u>					
Statements:	female	2.83	3.25	1.33	*2.25
3,10,12,18	male	*2.28C	*2.83	3.08A	2.95
<u>Aptitudes and Traits</u>					
Statements:	female	1.25	1.75	1.08	1.25D
6,7,15,9	male	2.08	2.45	2.73A	2.50
<u>Leadership and Authority</u>					
Statements:	female	1.93	1.25	1.40	*1.60
17,5,8,14	male	*1.83C	2.48	2.38A	2.30D
<u>Education</u>					
Statements:	female	1.65	1.00	1.15	*1.35
1,11	male	*1.20	*1.70B	2.30A	1.95

IV.F.1. (Continued)

*No statistically significant difference between sexes.

(Note that for faculty, each of the three categories of males were compared with the total for females because the female simple in each of three categories was too small to be meaningful.)

- A Differences significant between traditional and non-traditional students of the same sex
 - or Differences significant between traditional and humanities faculty of the same sex
- B Differences significant between traditional and gender-neutral students of the same sex
 - or Differences significant between humanities and gender-neutral faculty of the same sex
- C Differences significant between non-traditional and gender-neutral students of the same sex
 - or Differences significant between humanities and gender-neutral faculty of the same sex
- D Differences significant between faculty and students of the same sex

IV.F.2 ATTITUDINAL SURVEY FACULTY & STUDENT MEAN SCORES BY SEX

<u>STATEMENT</u>	<u>FACULTY</u>		<u>STUDENTS</u>	
	<u>MALE</u>	<u>FEMALE</u>	<u>FEMALE</u>	<u>MALE</u>
*4. When planning for a career, females should consider technical and skilled jobs that traditionally have been for men only.	2.6	2.9	2.9	3.3
6. Women are best suited for work which is involved with helping others.	3.0	1.3	2.4	3.0
*16. More men should be encouraged to enter fields traditionally thought of as for women such as secretary and airline attendants.	2.7	2.0	2.3	3.3
3. A women's place is in the home at least until her children are raised.	3.2	2.6	2.2	3.1
10. A woman should not return to work or school if her husband objects.	3.0	2.3	2.0	3.0
*12. A woman can be a good mother while being employed full time.	2.9	2.4	2.0	3.3
7. Women tend to respond emotionally, men intellectually.	3.0	1.6	2.0	3.2
1. A college degree is a waste of money for women if they never expect to use it through gainful employment.	2.1	1.7	1.9	2.7
*17. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.	2.3	2.3	1.8	2.6
5. Men make better bosses than women.	2.8	1.6	1.7	3.1
18. Married women should only work when their income is necessary to support the family.	2.7	1.7	1.7	2.7
8. Women have less need to achieve and are, therefore, less competitive than men.	2.2	1.1	1.5	2.3
2. Women who work are taking jobs away from men.	2.7	1.6	1.4	2.6

IV.F.2 (Continued)

<u>STATEMENT</u>	<u>FACULTY</u>		<u>STUDENTS</u>	
	<u>MALE</u>	<u>FEMALE</u>	<u>FEMALE</u>	<u>MALE</u>
14. Women lack conviction; they don't stick up for their choices the way men do.	1.9	1.4	1.4	2.3
13. Full time outdoor jobs are unsuitable for women.	2.3	1.1	1.4	2.5
15. Women are too emotional to make well informed, well-considered decisions.	2.1	1.1	1.3	2.3
9. Men are naturally more capable in financial matters than women.	1.9	1.0	1.3	2.2
11. Expensive and advanced vocational or professional training should be given only to men.	1.8	1.0	1.1	1.8
TOTAL	2.52	1.71	1.84	2.78
SAMPLE	47	7	175	147
STANDARD DEVIATION	1.25	1.21	1.08	1.25

*Items marked * were scored so that "strongly disagree" = 5; for those items unmarked, "strongly agree" = 5.

Note: for this and all other survey tables, the means of the scores are listed in descending order, the most traditional first, according to the responses of all female student respondents.

IV.F.3 ATTITUDINAL SURVEY MEAN SCORES BY PROGRAM GROUP

STUDENTS

<u>STATE- MENT</u>	<u>F E M A L E</u>			<u>M A L E</u>		
	<u>NON- TRADITIONAL</u>	<u>GENDER NEUTRAL</u>	<u>TRADITIONAL</u>	<u>TRADITIONAL</u>	<u>GENDER NEUTRAL</u>	<u>NON- TRADITIONAL</u>
4.	2.7	2.8	3.3	3.3	3.0	3.8
6.	2.2	2.4	2.6	3.0	3.1	3.1
16.	2.6	2.1	2.5	3.3	2.6	3.3
3.	1.9	2.1	2.4	3.2	2.8	3.0
10.	1.9	2.1	2.1	3.1	2.5	2.5
12.	2.1	2.0	1.9	3.3	3.4	3.4
7.	2.0	2.0	1.9	3.3	3.0	2.5
1.	1.7	2.0	2.0	2.8	2.2	2.5
17.	1.8	1.8	2.0	2.5	2.2	2.9
5.	1.7	1.6	1.8	3.1	2.5	3.0
18.	1.6	1.6	1.9	2.7	2.3	2.9
8.	1.4	1.4	1.6	2.4	1.8	1.9
2.	1.2	1.5	1.5	2.6	2.4	2.4
14.	1.3	1.3	1.6	2.3	2.3	2.1
13.	1.2	1.6	1.5	2.7	1.5	2.3
15.	1.2	1.2	1.6	2.4	2.1	1.7
9.	1.3	1.2	1.5	2.2	2.2	2.0
11.	1.1	1.1	1.2	1.8	1.7	1.5
TOTAL	1.75	1.81	1.94	2.83	2.46	2.63
SAMPLE	39	79	57	119	9	19
STANDARD DEVIATION	1.03	1.05	1.15	1.22	1.25	1.38

IV.F.4 ATTITUDINAL SURVEY MEAN SCORES BY PROGRAM GROUP

FACULTY

<u>STATE- MENT</u>	<u>F E M A L E</u>			<u>M A L E</u>		
	<u>HUMANITIES</u>	<u>GENDER NEUTRAL</u>	<u>TRADITIONAL</u>	<u>TRADITIONAL</u>	<u>GENDER NEUTRAL</u>	<u>HUMANITIES</u>
4.	2.4	3.0	4.3	3.0	2.6	1.8
6.	1.0	2.0	1.3	3.3	2.8	2.3
16.	1.3	2.0	2.6	2.9	2.6	2.1
3.	2.7	4.0	2.0	3.5	3.3	2.3
10.	3.0	3.0	1.3	2.6	2.9	2.5
12.	3.3	4.0	1.0	3.3	2.6	2.1
7.	2.0	2.0	1.0	3.2	3.1	2.6
1.	2.3	1.0	1.3	2.6	1.7	1.2
17.	2.7	1.0	2.3	2.6	2.1	1.5
5.	1.7	2.0	1.3	2.8	3.3	2.4
18.	2.3	2.0	1.0	2.9	2.5	2.2
8.	1.3	1.0	1.0	2.0	2.7	2.0
2.	2.0	2.0	1.0	2.8	2.7	2.4
14.	2.0	1.0	1.0	2.1	1.8	1.4
13.	1.0	2.0	1.0	2.6	2.1	1.6
15.	1.0	2.0	1.0	2.3	2.2	1.7
9.	1.0	1.0	1.0	2.1	1.7	1.7
11.	1.0	1.0	1.0	2.0	1.7	1.2
TOTAL	1.85	2.00	1.48	2.74	2.46	1.94
SAMPLE	3	1	3	27	10	10
STANDARD DEVIATION	*	*	*	1.29	1.06	1.10

* Total Female Faculty 1.21

IV.F.5 ATTITUDINAL SURVEY--FACULTY SAMPLE

SURVEY GROUP AND DIVISION	Full-Time Faculty *		Complete Responses +		% Responses	
	Male	Female	Male	Female	Male	Female
<u>Male Traditional</u>						
Transportation	16	0	7	0	44%	--
Engineering **	21	0	8	0	38%	--
Electronics/Electrical	12	0	4	0	33%	--
Building	15	0	6	0	40%	--
Earth Science ++	9	0	2	0	22%	--
Heavy Equipment	4	0	0	0	0%	--
Total	<u>77</u>	<u>0</u>	<u>27</u>	<u>0</u>	<u>35%</u>	<u>--</u>
<u>Female Traditional</u>						
Nursing/Operating Room Technology +++	<u>0</u>	<u>6</u>	0	3	--	50%
<u>Gender-Neutral</u>						
Business & Computer Science	10	5	2	1	20%	20%
Math Science & Food Services	11	2	6	0	55%	0%
Horticulture ++	3	0	2	0	67%	--
Total	<u>24</u>	<u>7</u>	<u>10</u>	<u>1</u>	<u>42%</u>	<u>14%</u>
<u>Humanities</u>						
Liberal Arts	<u>16</u>	<u>5</u>	10	3	63%	60%
GRAND TOTAL	117	18	47	7	40%	39%

* Attitudinal sets were distributed to all Faculty.

** Excluding one Faculty member on leave.

+ Two sets were returned incomplete and were not used.

++ Horticulture is under the Earth Science Division but for survey purposes was separated out and included with GN group.

+++ ORT is under Math Science Division but for the survey grouped with Female Traditional programs.

IV.F.6

QUESTIONNAIRE

FOR FACULTY:

Program in which you teach _____ Your Division _____

Your sex _____ How long have you taught at WACC _____

FOR STUDENTS:

Your program at WACC _____ Your Division _____

Your age _____ Your sex _____

Including this one, number of semesters at WACC _____

The following questions ask for your opinion. Please answer honestly in terms of your own current opinions, not how you think others will answer.

For each numbered sentence below you are to indicate how strongly you agree or disagree with that statement. Circle the number in front of each statement which most accurately reflects your position. The code is:

- 1 = strongly disagree
- 2 = disagree
- 3 = uncertain
- 4 = agree
- 5 = strongly agree

STRONGLY
DISAGREE

STRONGLY
AGREE

- | | | | | | | |
|---|---|---|---|---|----|---|
| 1 | 2 | 3 | 4 | 5 | 1. | A college degree is a waste of money for women if they never expect to use it through gainful employment. |
| 1 | 2 | 3 | 4 | 5 | 2. | Women who work are taking jobs away from men. |
| 1 | 2 | 3 | 4 | 5 | 3. | A women's place is in the home at least until her children are raised. |
| 1 | 2 | 3 | 4 | 5 | 4. | When planning for a career, females should consider technical and skilled jobs that traditionally have been for men only. |

IV.F.6
(continued)

<u>STRONGLY DISAGREE</u>				<u>STRONGLY AGREE</u>		
1	2	3	4	5		5. Men make better bosses than women.
1	2	3	4	5		6. Women are best suited for work which is involved with helping others.
1	2	3	4	5		7. Women tend to respond emotionally, men intellectually.
1	2	3	4	5		8. Women have less need to achieve and are, therefore, less competitive than men.
1	2	3	4	5		9. Men are naturally more capable in financial matters than women.
1	2	3	4	5		10. A woman should not return to work or school if her husband objects.
1	2	3	4	5		11. Expensive and advanced vocational or professional training should be given only to men.
1	2	3	4	5		12. A woman can be a good mother while being employed full time.
1	2	3	4	5		13. Full time outdoor jobs are unsuitable for women.
1	2	3	4	5		14. Women lack conviction; they don't stick up for their choices the way men do.
1	2	3	4	5		15. Women are too emotional to make well-informed, well-considered decisions.
1	2	3	4	5		16. More men should be encouraged to enter fields traditionally thought of as for women such as secretary and airline attendants.
1	2	3	4	5		17. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.
1	2	3	4	5		18. Married women should only work when their income is necessary to support the family.

CAREER DEVELOPMENT CENTER

General Comments

In March, 1977, WACC's Career Development Center became a fulltime professional operation. For the previous seven months it had been staffed with work study students who showed clients how to use the available printed and audio-visual resource materials. Referrals were made to one staff member in the Counseling Center for career counseling.

Once professional staff was hired the CDC became a multi-faceted operation. In addition to resource information, which was rapidly increased, counseling, testing, and programming were now provided. Federally funded, the CDC employs a male Director, a female paraprofessional, and two female Career Specialists. The CDC staff has a high degree of awareness on the issues of sex stereotyping and biases. To date no programming on nontraditional careers has been done, but noncredit courses are scheduled for fall 1977 on "Career Exploration for Women" and "Men in Transition", which will incorporate consideration of a full range of options for both females and males. The staff has reviewed printed and audio-visual materials directed toward overcoming stereotypes and opportunities for nontraditional students, and plans to use such materials in future programming.

During the summer of 1977, the staff designed written material for a CDC brochure. A cover sketch of people at work prepared by an artist hired by the Communications Specialist initially showed seven males and three females all in highly stereotyped occupations. The Director and the staff refused to accept the drawing until changes could be made. Due to time constraints the original drawing was altered and not entirely replaced. Of the ten figures in the redesigned drawing, four are of women, with two of these in nontraditional job, press operator and construction worker. One of the men is now clearly black. Such concerted action is appropriate and necessary to sensitize other colleagues and to make concrete the College's commitment to overcome its own sex stereotyping.

From September to December, 1976, the CDC sponsored periodic Career Forums. These sessions were scheduled during the regular academic day. Representatives from local business and industry provided information on their field and answered students' questions. During this period fifteen forums were held covering some occupations traditionally assumed to be for males, others for females. Two focused on occupations increasingly mixed by sex. However, of the fifteen speakers, the only one who was female was a woman who discussed the medical secretarial field. No attempt was made to include more women speakers, or to present the opportunities for females and males in a fuller range of occupations. Student participation ranged from a few individuals to several dozen depending upon the scheduled topic. As previously organized, the Career Forums reinforced conscious and unconscious sex stereotypes about "men's" and "women's" work. Such programs in the future could offer an excellent opportunity to show all involved that occupational sex stereotyping can be eliminated. In addition, such resource people could provide role models to those students enrolled in or considering a nontraditional field.

Written Materials

A sample of the most frequently used written career and occupational information in three fields was reviewed. The three areas corresponded to three Divisions, or a part of a Division, at WACC--Business and Computer Science, Allied Health and Electrical/Electronics. The first Division includes programs which are heavily sex stereotyped and assumed to be for females, but also has curriculums which are moving toward a more equitable mix of the sexes; the allied health fields at the professional level of an Associate or Bachelors degree are traditionally female; fields associated with the Electrical/Electronics Division are traditionally presumed to be for males. Information reviewed on occupations in these areas came from three sources: 1) File boxes corresponding to each program available at WACC's CDC which contain assorted booklets, sheets, and pamphlets collected over a period of time. 2) The Career Information Kit, published in 1974, by Science Research Associates, Incorporated. 3) The Vocational Biographies Series, copyright 1972, which contains specific information on individual careers, plus comments from and personal histories of individuals currently in each field.

In this last series, an entire booklet, New Careers for Women, published in 1973, is geared to the needs of women. Included also is general information on women's role in the labor force and a discussion of both traditional and nontraditional options. Following the series' biographical approach, a wide variety of jobs and professions are discussed using examples and comments from women in those fields. Inclusion of such a range of possibilities emphasizes women's options. In general, the booklet takes a positive, supportive tone in suggesting to women they do have choices to make about jobs and careers, and, like men, these concerns will probably occupy a large segment of their life.

In the assorted boxed material on programs corresponding to the Business and Computer Science Division, the most sex stereotyped is in the field of general business management. The student or trainee is consistently assumed to be male, and pictures and language follow from that assumption. Pamphlets in the secretarial science areas present a distinctive picture. In the sample of four pieces reviewed, one uses masculine pronouns to describe students while two specifically deviate from this pattern by using only female pronouns and women in illustrations. A brochure on employment as a sales clerk consistently uses "he" when referring to the employees. However, it includes a paragraph stating that many workers in this field are women who will leave to get married, or take care of their children. According to this pamphlet, many sales workers, including married women who are supplementing their husbands' income, lack ambition to attain positions of more responsibility.

The paragraph closes with the advice that the sales clerk who does want to get ahead should take advantage of training opportunities and show a real interest in "his" job. Other material gives a mixed message using masculine language, but occasionally throwing in a picture of a woman countering this approach. Particularly noteworthy are booklets on opportunities for women in such fields as banking and accounting. Any student going through these boxes would see the existence of such specialized, compensatory materials.

In the Career Information Kit, literature was reviewed for the occupations of accountant, business manager, computer operator and programmer, and secretary. In accounting, available material is sex neutral showing both females and males in illustrations. In the business management file, the least stereotyped information is found in Careers in Corporate Management, revised edition put out by the B'nai B'rith Career and Counseling Services. A short special section on opportunities for women is concise and straightforward. In contrast is the message included in an SRA distributed booklet, Invitation to Achievement--Your Career in Management. According to this, there are opportunities for women due at least in part to the pushy and abrasive women's movement. "Periodically however, they (women) seem to welcome the renewed assertion that, intelligent or not, their one truly satisfying role in life is as wives and mothers, which may account for the current shrillness of Women's Lib".¹ Less overt, but still condescending, is a 1973 SRA Occupational Brief on Executive which, in a special section says there are opportunities for women but only those with enough drive and ambition to handle the competition. It would seem that ambition and dedication would be qualities necessary for all potential executives, not just women.

SRA Occupational Briefs, both printed in 1974, on computer programmer and data processing machine operator use masculine language to refer to the worker. A 1972 Occupational Brief on the position of secretary reveals defending the use of "he" and "his" on the grounds they refer to all people will not hold up. In this instance there is a statement about men in the field and the demand for male secretaries, but feminine personal pronouns are used each time. A 1976 Occupational Brief on legal secretary is improved by using sex neutral language; however, the two pictures and one personal example include only women. In this category the best piece is the Occupational Brief on shorthand reporter which uses sex neutral language and pictures of both women and men.

The Vocational Biographies were reviewed in the following business areas: accounting, finance and management, office management, computer science, and secretary. All five biographies in accounting are of men. In addition to this lack of representation of women in the regular sections on accounting, the description of a management services director includes condescending comments on women. Women have good opportunities in this type of position, it states, because they are patient, tenacious, and not adverse to drudgery and detail. Such generalized statements appear to be obvious extensions of stereotypes on women's abilities.

In this series women are realistically portrayed and represented in positions related to office management and computer science. However, only one of the seven biographies in the category of finance and management is of a woman while all seven in the secretarial field feature females. This simple fact would indicate that the authors are delivering a message about which sex most appropriately holds these jobs. Although the separate booklet, New Careers for Women includes some discussion of women in finance, the rest of the booklets in the series might more appropriately have also included a better mix of the sexes in all fields. In breaking down stereotypes it would be useful

¹ Elizabeth Marting, "Invitation to Achievements - Your Career in Management", AMACOM, Division of American Management Associates, 1972, p. 11.

if the men using this material, who would not necessarily be expected to examine the separate information designed for women, saw females and males portrayed in a full range of occupations.

Assorted pamphlets available on radiologic and medical technicians uniformly assume the doctor or supervisor is male, the technician female. Nursing information also consistently refers to the physician as "he" and the nurse as "she". Several pieces of information made the point that men are entering nursing, although illustrations and examples are predominantly female. A 1976 Occupational Brief on dental assistant pictures a female assistant, a male dentist, and adds that an assistant needs an attractive appearance and pleasant voice and personality as well as proper training. Statements like that are applied only to females revealing the author's sex stereotyped assumptions about who will become dental assistants.

Reviewing SRA's Career Information Kit in allied health occupations reveals an inconsistent message. The newest 1977 Occupational Briefs use sex neutral language and women and men in illustrations. Occupational Briefs dated 1972 and 1973 still in the Career Development Center's set are more noticeably sex stereotyped. In these cases dental assistants are all female while the lab technicians are all male.

Information on nursing in SRA Occupational Briefs covers opportunities for both women and men with a straightforward, supportive statement about males in nursing particularly in the position of registered nurse. In this same vein the National League for Nursing's brochure, "Nurse", subtitled "Husband/Father/Humanitarian/Specialist" focuses entirely on men in the profession. This is in sharp contrast to a brochure distributed by the National Association for Practical Nurse Education and Service, Inc. which states all age groups should consider this field, "you and your mother can even enroll together!" and "if you're a woman and marriage is in your future, LPN's make the best wives and mothers!"

The Vocational Biographies series in health related occupations includes women and men in discussions on nursing and several medical technician positions. However, in the field of dental assistants sex stereotyping is subtly reinforced by the one man included being a laboratory technician while the hygienist and receptionist are females. The possibilities for both sexes in all aspects of dental assistantship should be pointed out in using this material with clients.

Two pieces of material in the file boxes related to the Electrical Construction program offer an interesting contrast. A 1973 Occupational Brief, prepared by Chronicle Guidance Publications, on lineman is heavily sex stereotyped. A short section on openings for women does briefly discuss opportunities for females. A 1976 piece published by this same group on electrical equipment manufacturing occupations uses no personal pronouns and in language could be considered sex neutral. The one picture, however, is of a man. In very small print at the bottom of the last page it states, "Materials used in this brief relating to males and females, such as illustrations, names, personal pronouns, apply to both sexes. Occupations discussed

should be considered valid, advantageous, or proper for either sex."² A statement like this should receive more prominence and not be buried at the end in very small print; and where an occupation has traditionally been sex stereotyped a special mention of opportunities for nontraditional workers would be appropriate. The good aspects of these two brochures ideally should be combined and included in all such publications.

Information on positions related to WACC's Electrical Technology program assumes the technician is male, although a 1974 Chronicle Guidance Occupational Brief on telephone industry technician does show a woman on the job. That same group's Occupational Brief on electrical appliance serviceman includes a paragraph on women. However, the content is condescending and clearly implies these jobs are really "men's work". "While women can do the work, a high percentage of such workers are men. However, ladies are employed in service centers on the 'counter' where they receive and check in appliances, for dispatchers, and for service managers. Some knowledge of appliance repairing offers limited possibilities."³ (emphasis added).

There is a limited amount of information in the Career Information Kit on occupations related to the Electrical/Electronics curriculums. A 1976 SRA Occupational Brief on home appliance service technician uses sex neutral language. Their 1972 piece on electrician includes a statement that a small number of women do work in this field. Not available was any material specifically written with women or overcoming sex stereotypes in mind.

The three related pieces in the Vocational Biographies use only men as examples. In the New Careers for Women booklet women are discussed in the positions of customer service engineer, repairing electrical office machines, and cable splicer for a telephone company. However, as mentioned in reviewing business related information, a better balance of the sexes and opportunities for nontraditional workers should appear throughout the rest of the series.

After reviewing a sample of the career materials as mentioned in detail above, it is apparent that they do contain numerous instances of sex stereotyping. Some examples are overt, others are subtle. Particularly offensive material was, when possible, immediately removed from circulation by the CDC's resource librarian. Obviously such steps can not be taken when stereotypes are built into a series of booklets which have valuable and more objective career information in other parts. However, knowledge of what kind of messages is in this material is essential if the career counseling process as a whole is to compensate for these limitations.

Testing

Sex stereotyping can result in limitations on the development of people's abilities and even the free expression of their interests. These factors must

2 "Electrical Equipment Manufacturing Occupations", Occupational Brief, Chronicle Guidance Publications, Inc., Moravia, N.Y., 1976, p.4.

3 "Electrical Appliance Serviceman", Occupational Brief, Chronicle Guidance Publications, Inc., Moravia, N.Y., 1973, p.3.

be taken into account when using any supposed measure or recorder of an individual's or group's interests. This is especially important given the role these tests can play in the process of vocational and educational development. The question to ask is, are there ways in which tests are perpetuating a cycle of systematic bias and discrimination either through their design or instructions for use and interpretation. And perhaps a more important query must also be put forth -- how does the total counseling/career development process, including testing, acknowledge the existence of stereotyping and attempt to deal with it?

The Strong Vocational Interest Blank, SVIB-W (for women) has been thoroughly and repeatedly criticized as being heavily biased against women by limiting their indicated career choices.

Resolution to the American Personnel and Guidance Association: Revision of the Strong Vocational Interest Blanks. Presented to the American Personnel and Guidance Association, Chicago, March, 1972. This resolution asked the APGA to request revision of the SVIB to eliminate discrimination and that counselors be instructed to refuse to administer the SVIB until it is determined that sex discrimination is eliminated. The resolution was referred to the Association on Measurement and Evaluation in Guidance for recommendations. An attachment details the following criticisms of the SVIB: the men's and women's lists of occupations differ substantially, and discrimination appeared to enter; in addition, women's occupations are, on the whole, of lower status or salary. Census data indicates that in many instances adequate samples of women would be available to provide data on the opposite sex in an occupation reserved for one sex on the SVIB.⁴

As a result of such criticism and pressure, a revision considered more sex neutral has been developed, the Strong-Campbell Interest Inventory (SCII). Considered much less biased and more comprehensive the SCII is the most frequently used test instrument at the Career Development Center.

The Kuder DD was administered by Counseling Center staff during the first half of this project prior to fulltime Career Development staff being hired. The Kuder DD has been subject to criticism similar to that leveled against the SVIB because of its occupational interest scales. The latter for women has not included such important professions as law, business management, pre-medical, dentistry, finance, marketing and government. A section of the Kuder DD Manual itself discusses "Use of Scores Based on Data From Male Groups in Counseling Women". The manual indicates that studies show use of scores for women on scales developed on male subjects can be useful in working with females. Since only 37 of the 114 occupational scales and 19 of the 48 college major scales have been developed on women subjects, female clients have no choice but to rely on male developed scales for a substantial

4 Carol Kehr Tittle, Karen McCarthy, Jane Fogger Steckler, Women and Educational Testing -- A Selective Review of the Research Literature and Testing Practices, Educational Testing Service & Association for Measurement and Evaluation in Guidance, Princeton, N.J., 1974, p. 64.

number of fields. Supposedly scales were developed for females in those occupations where they are most represented and in which there are growing opportunities for them. Given the well documented job ghettoization and the channeling of women into fewer fields than men, one questions how women are to break out of the cycle if test scales continue in this manner.

Dr. Esther Diamond addresses this problem in dealing with a question on expanding the number of scales developed on women. There is a time lag in developing new criterion groups as a sample population must meet a number of requirements such as age range, geographic representation, time on job, job satisfaction, etc. Dr. Diamond cautions, however, against merely waiting for changes in socialization and testing to completely match. Other tools and information plus balanced interpretation are necessary to overcome bias.⁵ However, in the meantime counselors are left with statements such as the following from the Kuder DD Manual in its section on using scores normed on male groups with female clients.

Perfect correspondence (on data from men's scores as opposed to data from women) is hardly to be expected, particularly since an exact correspondence of duties cannot be taken for granted for men and women in occupations with the same title. For example, male florists generally do heavier work than female florists, and male librarians generally have more administrative duties than female librarians. In most cases, however, the similarities greatly outweigh the dissimilarities.⁶

The last sentence, assuming it is true, would seem to negate the two sex biased examples immediately preceding it.

The Holland Self Directed Search uses past job related activities to classify one's possible relationship to the world of work. It relies on reactions, liking or disliking activities in a particular job, rather than matching similarities to those people now in a certain job.

There seems to be a great deal of controversy surrounding the alleged sex bias of the SDS. Holland himself has taken on critics who have labeled his instrument discriminatory, but the criticism continues from a number of sources.

The SDS defines its "D" category in response to an activity as "those things you are indifferent to, have never done, or do not like". As Cole and Hanson have pointed out girls and boys have exposure to and are supposed to like different things, different activities. "Because of the differences

5 Dr. Esther Diamond, "The Kuder General Interest Survey Form DD: Some Questions and Answers About Sex Bias", Science Research Assoc., Chicago, IL., rev. 1976

6 G. Frederick Kuder, Occupational Interest Survey General Manual, Science Research Associates, Chicago, IL., 1970, p.25.

in socialization, not liking an activity might have quite a different meaning for a boy who had tried it and been 'allowed' to like it than for a girl whose socialization ruled it out."⁷

Holland defends the SDS by saying it reflects the reality that boys and girls are socialized differently. He also adds that in his opinion the SDS can help people identify fields in which they most likely will be satisfied. For the time being we are in a state of flux where opportunities are opening faster than the early socialization process is adapting.⁸

Cole and Hanson have stated Holland's position in the form of the following hypothesis: Hypothesis of socialization dominance--until the areas of socially accepted interest options become broadened during a person's development, the careers in which such people will be satisfied will not be broadened. They have stated an alternative hypothesis based on Cole's work on the structure of women's interests: Hypothesis of opportunity dominance--when career opportunities widen, people will find satisfaction in a wider range of careers in spite of limiting aspects of their earlier socialization.

Cole and Hanson list the two criteria which should be met by every interest inventory: 1) Interest inventory scores should suggest occupations that broaden the options of both sexes throughout the full range of career areas; and 2) interest inventory results should stimulate exploratory behavior. The problem with Holland's approach is his desire to first change socialization, rather than change his test which reflects, in his opinion, the reality of socialization. Birk rejects this as an "either-or" approach and argues convincingly for the "and also" procedure.⁹

The California Occupational Preference Schedule (COPS) is most often used with younger clients and those for whom self-scoring and quick interpretation is desirable. It was designed to help the client determine and confirm her/his major areas of interest and to then use this information to investigate specific occupations. The free response answering system of "dislike very much" to "like very much" in the COPS makes it subject to similar questions posed about the Holland SDS--how much does sex stereotyped socialization limit and interfere with one's true indication of likes and dislikes in such a way that a client can eliminate whole areas of consideration

7 Nancy S. Cole and Gary R. Hanson, "Impact of Interest Inventories on Career Choice," Issues of Sex Bias and Sex Fairness in Career Interest Measurement. DHEW, National Institute of Education, Career Education Program, Spring, 1975, p. 9.

8 Holland defends his SDS with two studies (Redmond, 1972 and Zener and Schnuelle, 1972), reporting there were no statistical differences between the sexes, and that after the SDS was administered both boys and girls had increased the number of occupations they considered. He denies the validity of a 1972 HEW statement that "the SDS discourages women from entering skilled trades. . . and men from entering office occupations."

9 Janice M. Birk, "Reducing Sex Bias: Factors Affecting the Client's View of the Use of Career Interest Inventories", Ibid. p. 101-121.

because of her/his sex. Other criticism of the COPS focus on the scanty information about the instrument's validity and the norm groups. In general it's ease of administration supports using the COPS in certain situations; however, staff should be aware of its definite limitations.

Summary

After reviewing a random selection of the most frequently used printed career education information in the fields of business, allied health, and electrical/electronics, it was discovered much of this material contains sex role stereotyping. Sex neutral material and special compensatory pieces on nontraditional workers' opportunities do exist primarily in business and allied health. However, these and sex neutral pieces are greatly outnumbered. CDC clients are often referred to this information and read through it on their own picking and choosing what interests them. Used in this manner there is no way for staff members to point out or try and overcome the biased messages. It is only at the point the client asks for specific assistance or begins career counseling with a staff member that the limitations of printed material and the existence of alternatives is usually pointed out. When this does happen with a female client the Career Development Center has a basic set of resources geared to the special needs of women.

Testing, on the other hand, necessitates a client--staff member relationship. Testing is used as only one aspect of the career counseling process particularly designed to begin providing direction to unfocused client. Staff members need to be aware of possible built-in sex stereotyped limitations in the instruments themselves which might be counterproductive to the stated goals of career exploration.

SECONDARY GUIDANCE PERSONNEL WORKSHOPS

The results of the four workshops held in May, 1977 in terms of number of participants and their evaluation of the usefulness of the sessions was disappointing. Thirty-six counselors attended with 11 sponsoring districts having at least one representative at a workshop. Of these thirty-six counselors, nine were from the Keystone Central School District and eleven from the Williamsport Area School District. See IV.H.1 for a list of participants and the schools they represented.

The sessions included a presentation outlined in IV.H.2 and a segment conducted by a staff member of WACC's Career Development Center. A resource packet was also distributed which included several articles on the model programs discussed, the National Education Association's sheets "Facts About Women Workers", a brief bibliography of materials which could be useful in dealing with sex stereotyping, and a short list of resource groups. The last was to supplement information and material available to them from their own professional organizations. See IV.H.3 for the bibliography and resource groups distributed at the sessions. Also included in the packet was material on career education prepared by the Career Development Center.

A surprising number of those receiving a letter inviting them to attend never responded at all making it difficult to know how many people would attend each session. Of those who called or wrote saying they would be unable to attend, most either cited schedule conflicts or no provisions made by their institutions for them to attend such a session. As might be expected, the farther people had to travel the less likely they were to attend.

A fifth session scheduled for Wellsboro had to be cancelled due to an insufficient number of counselors planning to attend.

The packets distributed to each participant included a brief evaluation form asking for comments on the various segments of the presentation. They were asked to indicate whether the information and/or discussion in each of these areas provided them with new knowledge and could be useful in their own career education programs. A stamped envelope addressed to the Career Development Center was also enclosed. Eleven forms were returned with comments being broken down in the following way: one asked to borrow a film on a model project; six indicated they were already generally familiar with the information presented although four felt the presentation was a reminder of the problems of stereotyping; four specifically felt they gained new information and were particularly glad to receive the bibliography and resource list and hear about the model projects. Two counselors took pains to point out that in their opinion their schools were treating girls and boys equally; one felt that physical differences between the sexes resulted in females and males not being equally suited to all occupations although individuals should have the opportunity "to decide this for himself or herself."

Analyzing the degree of participation in the workshops, the discussions and comments that took place at the sessions and in the evaluations, there are several points that can be made. There needs to be heightened awareness on the part of counselors as to how sex role stereotyping manifests itself in their own schools

and departments. It is not enough to know that generally this is a problem in society; counselors should be trained to examine what in their own programs and schools contributes to and reinforces stereotyping.

During the workshops apparently the connection was not stated clearly enough that facts on women in the labor force and the existence of job ghettoization plus information on new opportunities for people in non-traditional occupations should be included in a school's career education materials and programs. One male counselor stated what several others were undoubtedly thinking. He said that if he were even to talk to a female student about considering a non-traditional occupation such as construction, the girl's parents and other community members would all but have his job.

It seems obvious that a number of counselors could use help in more accurately identifying and dealing with sex bias and stereotyping in their own procedures and materials. Those attempting to deal with these problems need support in their efforts. WACC staff can not be perceived as attempting to correct the poor uninformed high school counselor and his/her career education efforts. But the College can provide itself as an example of an institution attempting to deal with sex stereotyping, and one ready to work with others anxious to tackle this problem.

IV.H.1

SECONDARY WORKSHOPS - SCHOOL DISTRICTS AND NUMBER OF PARTICIPANTSMay 9, 1977

Williamsport Area School District	11
Curtin Jr. High	1
Lycoming Valley Jr. High	1
Lycoming Valley/Stevens Jr. High	1
Williamsport Area High	7
Stevens Jr. High	1
South Williamsport High	2
Montoursville High	2
Montgomery	3
Hughesville	1

May 10, 1977

Selinsgrove Area School District	2
Millville School District	2
High School	1
Elementary School	1
Lewisburg High School	1

May 11, 1977

Canton Area High School	1
SRU High School	1
Towanda High	1

May 12, 1977

Participants were guidance staff from each junior and senior high in the
Keystone Central District

Lock Haven Jr. High	1
Lock Haven Sr. High	2
Bucktail High School	1
BEN Jr. High	1
BEN Sr. High	1
Sugar Valley Jr. and Sr. High	1
District Administrator	1
District Vocational Counselor	1

IV.H.2

SECONDARY SCHOOL GUIDANCE PERSONNEL - WORKSHOP OUTLINE

OVERCOMING SEX STEREOTYPING

- I. Introduction and background of sex stereotyping project
 - A. Connections with Career Education concept and process
 - B. Relationship to WACC's Career Development Center
- II. Women and the Labor Force - Characteristics and Trends
 - A. Statistical data on females employed
 - B. Characteristics of women's participation in labor force
 - C. "Job ghettoization" by sex
- III. Role of Socialization in Sex Stereotyping
- IV. Stereotypes in vocational education
 - A. Enrollment statistics nation wide
 - B. Preliminary data, WACC research project
- V. Problems of Expanding Awareness of Career Options
 - A. Societal attitudes
 - B. Students' attitudes
 - C. Educators' attitudes
 - D. Current lack of compensatory awareness programs undertaken by schools
 - 1. Limitations "equal opportunity counseling"
 - 2. Lack of role models in non-traditional careers
 - 3. Special support services for non-traditional students
- VI. Model Programs - Resources
 - A. EVE - Houston, Texas
 - B. Pioneers Project - State of North Carolina
- VII. Review of Packet Information and Resource Lists

INTRODUCTORY BIBLIOGRAPHY - NONSEXIST GUIDANCE AND COUNSELING

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Bem, Sandra L. & Daryl J.; Training the Woman to Know Her Place: The Social Antecedents of Women in the World of Work; Division of Pupil Personnel Services, Bureau of Instructional Support Services, PA Dept. of Education.; 1973

Excellent over-all presentation of the problems of sex role stereotyping and their effects on women's involvement in the labor force.

Diamond, Esther (Ed.); Issues of Sex Bias and Sex Fairness in Career Interest Measurement; National Institute of Education, Education and Work Group, 1200 9th St., N.W., Washington, D.C. 20208

Compilation of papers on sex bias in counseling and testing.

EVE: Equal Vocational Education; project report prepared by J. Lerner, F. Bergstrom, and J.E. Champagne: Center for Human Resources, University of Houston, Houston, Texas, 1976

Final report of a demonstrative secondary school project to increase female enrollment in traditionally male vocational education programs.

Farmer, H. and Backer, T.; Counselor's Sourcebook: Career Guidance and Vocational Counseling for Women. Human Interaction Research Institute, Los Angeles, California

Guidelines for Equal Treatment of the Sexes in McGraw-Hill Book Company Publications.

Guides for eliminating sex biased language.

Guidelines: Fair and Balanced Treatment of Minorities and Women; South-Western Publishing Company, 5101 Cincinnati, Ohio 54227

Guidelines for eliminating language biased on account of sex or race.

Guidelines for Improving the Image of Women in Textbooks. Scott, Foresman and Company, 1900 East Lake Avenue, Glenview, Ill. 60025, 1972

Resources for Counselors, Teachers and Administrators - Project on Sex Equality in Guidance Opportunities of the American Personnel and Guidance Assoc.

Information on counseling, curricula, bibliographies, etc.

IV.H.3
(continued)

Seed, Susan - Saturday's Child: 36 Women Talk About Their Jobs; Bantam, Pathfinder Editions, 666 Fifth Avenue, New York 10019

Excellent for use with students. Women in non-traditional jobs offer personal observations, feelings, and anecdotes.

Self Study Guide to Sexism in Schools; Education Committee of Pennsylvanians for Women's Rights and the Pennsylvania Department of Education

General information on sexism and education and what schools should be doing about it.

Sex Fairness in Career Guidance: A Learning Kit; 1975, Abt. Publications

Curriculum which discusses various roles for females and males plus an introduction to a sex fair guidance program.

Sex Role Stereotyping in the Schools; National Education Association, Washington, D.C.

Compilation of articles on sex stereotyping and schools.

Sex Stereotyping and Occupational Aspiration: An Annotated Bibliography; compiled by Anne E. Stakelon and Joel H. Magisos; Center for Vocational Education, Ohio State University, 1960 Kenny Rd., Columbus, Ohio 43210, October 1975

Splaver, Sarah - Non-Traditional Careers for Women, 1973; Julian Messner, 1 West 39th Street, New York 10018

Excellent book with a wide range of occupations described.

Steiger, Dr. JoAnn M.; Women and Work, Adult Vocational and Technical Education, Illinois Office of Education

Question and answer format addresses some of the most frequently raised concerns about women, work, and vocational education.

Tittle, Carol Kehe; McCarthy, Karen; Steckler, Jane Faggen; Women and Educational Testing, Educational Testing Service and Association for Measurement and Evaluation and Guidance, 1974, Princeton, N.J. 08540 -\$4.00

A selective review of the research literature and testing practices as they effect women.

Vetter, Stockburger, and Brose; Career Guidance Materials: Implications for Women's Career Development; 1974, R. & D. Series No. 97, CVTE, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210

IV.H.3
(continued)

Will Marriage Turn You On For 50 Years? YWCA Vocational Readiness Program
YWCA of Los Angeles, 1215 Lodi Place, Los Angeles, Calif. 90038

Games, techniques and pole playing situations for use with
Junior and Senior High School students concerning women,
marriage and careers.

Women in Non-Traditional Occupations- A Bibliography; DHEW, Office of
Education, Bureau of Occupational and Adult Education, Washington D.C.,
1976

1975 Handbook on Women Workers; Women's Bureau, U.S. Department of Labor

Readable narrative analyzes and explains a wealth of statistical
information on women in the labor force.

RESOURCE GROUPS

Catalyst
6 East 82nd Street
New York, New York 10028

Provides: (1) Network of career centers for
women
(2) Job clearing house service
(3) Publishing service

KNOW, Inc.
P.O. Box 86031
Pittsburgh, Pennsylvania 15221

Feminist publishing house of orig-
inal articles, reprints, and articles.

Office of Equal Rights
Pennsylvania Department of Education
Box 911
Harrisburg, Pennsylvania 17126
Phone: 717-787-1130

Pennsylvania Commission for Women
Room 512 Finance Building
Harrisburg, Pennsylvania 17128

Resource Center on Sex Roles in Education
1201 16th Street, N.W.
Washington, D.C. 20036
Phone: 202-833-4402

Women's Bureau, U.S. Department of Labor
National Office: Employment Standards Administration
Washington, D.C. 20210
Regional Office: Region III, 3535 Market Street, 15th Floor, Gateway Bldg.
Philadelphia, Pa. 19104

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions and Recommendations

Having followed the procedures outlined in the beginning of this report, the findings indicate various College produced or used materials and procedures contain or encourage sex role stereotyping. Researchers have documented there are sex stereotyped differentials in career and vocational education as a whole as well as categorization of many jobs as "female" and "male" resulting in job ghettoization of women. A postsecondary vocational institution must be willing to go beyond mere compliance with the law. It must demonstrate its commitment by actions which visibly and aggressively deal with this problem. Based on the information gathered during this project, the following are specific recommendations which WACC should consider adopting to deal with sex role stereotyping within the institution.

Recruitment and Admissions

1. Outdated and sex stereotyped program brochures should be removed from all College offices. Such materials should also be removed from College displays at area high schools and other institutions.
2. New brochures and booklets designed for recruitment or public relations purposes should be reviewed before final publication for instances of bias and stereotyping. The Schenck "Guide" used in this report is recommended for this purpose. The College Bulletin should also be subject to such a review.
3. New brochures should include a strong statement on WACC's desire to have both traditional and nontraditional students in its programs. Pictures of both sexes involved in comparable activities should also be included.
4. Special brochures focusing on opportunities for nontraditional students should be prepared for both general and special target populations.
5. The Admissions Office's procedure of counting applicants as male whose sex can not be determined by given information should be discontinued. Both in totals for individual programs and for the College as a whole these individuals should be counted proportionately as males and females using the percentage rates of men and women now enrolled at the College.
6. Admissions Office staff should incorporate opportunities for both traditional and nontraditional students in all presentations made. In addition, presentations should be scheduled for groups and individuals considered particularly interested in knowing of opportunities at WACC for nontraditional students.
7. Other research has shown that where possible more than one nontraditional student at a time should be recruited for a program. This lessens the students' sense of alienation and feeling different, provides support, and reduces the opportunities for unsympathetic faculty or students to isolate individuals. Particular programs could individually be targeted as the focus for recruiting such students.

Special Courses and Programs

1. In traditionally male fields noncredit Community Education courses with a particular emphasis on attracting nontraditional students should be expanded. Course titles should specifically reflect this commitment, e.g. "Home Repairs for the Male and Female Do-It-Yourself-er". Comparable courses intraditionally female areas such as office skills and procedures should be developed, also.
2. College personnel should explore the possibilities of specialized training courses emphasizing participation by nontraditional students such as the CETA funded machine operators program. Such efforts bring in nontraditional students and would seem to have a positive effect on breaking down the stereotyped attitudes of instructors and regular postsecondary students.
3. Divisions should be receptive to, and where appropriate initiate, short term programs or seminars for nontraditional students. These might include such topics as "Women in Management" or "Opportunities for Men in Allied Health". Such efforts open the doors of the College and share its resources with special populations not now being fully served. These programs would indicate WACC's commitment to such expanded career possibilities and would involve participants in the College at least for a short period of time.
4. Special opportunities should be provided for women students currently enrolled in traditional female program areas, particularly business, to learn of courses and skills they can take or acquire which could be beneficial in their upward career mobility. For example, secretarial students should be apprised of the benefits to their future employment possibilities of learning accounting and principles of business management. Without being channeled out of their current choices, the benefits to them in terms of securing better jobs in the future could be emphasized.
5. Mini-courses in the trade and technical areas should be developed to introduce women and men previously unfamiliar with specialized language and equipment to fields of study they would be reluctant to consider because of this lack of knowledge. Able and interested prospective students could begin to overcome this information deficit which might well be the main obstacle inhibiting their serious consideration of such fields.
6. Staff members working closely with area business and industry should initiate discussions with these contacts on providing training programs for employees in nontraditional jobs. These efforts could result in such students attending WACC. At the same time the College has helped employers expand job options for women and men employees.

Staff and Student Development

1. The College should provide special faculty and staff development sessions on identifying and overcoming sex role stereotyping and bias. Included in such sessions should be accurate information on women's participation in the labor market, countering myths and stereotypes based on sex such as generalized ideas about women's fitness to do physical work, increased opportunities for women and men in nontraditional occupations, and the College's commitment to be involved in expanded career options.

2. Academic administrators should provide opportunities and encouragement to faculty in recognizing sexism in their curriculum materials. Efforts to overcome these limitations when working with students should also be supported. Division Directors and faculty should carefully review curriculum materials in the future choosing them with increased sensitivity to the issue of sex role stereotyping. In the meantime a search should be undertaken to identify compensatory materials which can be incorporated into the current curriculum. Such materials do exist appropriate for many programs, and they should be used.
3. Inclusion of discussions on sex role stereotyping and the various contributions of women and men should be included in all courses whenever possible. Good and bad examples in currently used materials could well be a starting point for such discussions. Career and Human Development courses (CHD) and related future offerings should include sections focusing on stereotyping and its role in perpetuating myths and limiting people's personal development.
4. A thorough and focused review of targeted curriculums should be undertaken by a curriculum specialist. One goal should be the design of viable and academically sound non-sex biased alternatives.

Career Development and Placement

1. To compensate for sex stereotyped career education material which is currently in the Career Development Center, a printed statement should be prominently attached to each piece of biased information. This statement should point out the existence of sex stereotypes included at the time this material was printed. However, the fields can and have been appropriately chosen by both women and men. Language, pictures and examples should be interpreted as applying to both sexes.
2. Localized research should be initiated on tests frequently used by the Career Development Center. This research should attempt to determine whether there is any indication that the instruments or their use are perpetuating limitations of clients' options because of their sex.
3. Career forums and other career information programs should be designed to include information on and opportunities for nontraditional career choices. Speakers, printed materials and audio-visual resources should be chosen with this concern in mind. In addition seminars and courses designed to expand women's opportunities should continue and increase.
4. Placement statistics should be kept in such a way that information on graduates is available by sex. Such data will provide localized information on the progress on nontraditional students and can be valuable in future recruitment and placement efforts.
5. The College should adopt and make public a clearcut statement that the institution is committed to ending sex discrimination and stereotyping. A review procedure for charges of sex discrimination in employer recruitment should be developed by the Assistant Dean for Student and Career Development. Employers guilty of sex discrimination in their recruitment policies effecting WACC students should not be allowed the resources of the College.

Facilities

1. Adequate bathroom facilities for women should immediately be arranged in the Parkes Automotive Building and the airport facility for the Aviation Maintenance Technician program. In future plans to accommodate specialized populations such as the handicapped, the College should be mindful that at least 50% of this group will be female.

Support for Nontraditional Students

1. Once on campus the College must recognize its commitment to providing support for nontraditional students who in the foreseeable future will be working in a sex stereotyped atmosphere and programs. Where necessary staff in Student and Career Development should meet these needs through specialized support--discussion groups, counseling, or other appropriate methods. Specialized programs and seminars mentioned before can help provide this support as well as bring role models to the College campus.

Administrative Procedures

1. As this project's attitudinal survey indicates, sheer integration of the sexes in classrooms may well be a powerful tool in breaking down sex role stereotypes. Currently many students in the same or similar programs take almost all their classes together. Given the enrollment patterns this results, for example, in male students in traditionally male curriculums having no courses--including math or English--with women. Those courses which could provide classroom contact with females do not now do so because special sections are reserved for students in one curriculum. To provide for a better mix of the sexes wherever possible this practice of segregating one program from another, particularly prevalent in traditionally sex stereotyped curriculums, should be discontinued. This would provide students an opportunity to interact with both sexes in an academic setting.
2. Employment procedures should be reviewed to determine the effects existing policies may have in providing opportunities for women predominantly in the lower faculty and administrative ranks.
3. The College should update its Title IX report as soon as possible. Information on Title IX and other equal opportunity regulations should regularly be included in faculty and staff handbooks and development sessions. Overcoming sex role stereotyping requires going beyond simple compliance with the law; however, adherence to the letter of the law is certainly implied in commitment to the spirit of such legislation.

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